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A STUDY OF PRESENT AND NEEDED BOOK ACTIVITIES IN NATIONAL DEVELOPMENT--CHILE.

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EMPHASIZING TEXTBOOKS IN CHILE'S EDUCATIONAL SYSTEM, THIS STUDY USED A TEAM SURVEY APPROACH, WITH FIVE WEEKS OF FIELD WORK PRODUCING DESCRIPTIVE MATERIAL COLLECTED FROM INTERVIEWS, VISITS TO RELEVANT INSTITUTIONS AND MEETINGS, AND WRITTEN DATA. RESULTING SUGGESTIONS ARE BASED ON TEAM FINDINGS THAT (1) CHILEAN PUBLISHING IS UNDERDEVELOPED, (2) THERE IS AN ESPECIALLY CRITICAL NEED FOR TWO TYPES OF BOOKS--ELEMENTARY AND TECHNICAL-PROFESSIONAL TEXTBOOKS BECAUSE OF RECENT EDUCATIONAL IMPROVEMENTS AND TECHNICAL-SCIENTIFIC BOOKS FOR NATIONAL DEVELOPMENT, (3) CONTINUING INSUFFICIENT PUBLIC BOOK PRODUCTION RESOURCES CALL FOR GOVERNMENT SUPPORT, (4) INDUSTRY IS CAPABLE OF TECHNICAL PRODUCTION, AND (5) IMPORTATION OF SOME LIMITED DEMAND BOOKS WILL ALWAYS BE REQUIRED. GUIDELINES FOR A BOOK PROGRAM EMPHASIZING USE OF CHILEAN RESOURCES INCLUDE PARTICIPATION BY ALL RELEVANT GROUPS, PREDETERMINED DEFINITION FOR PARTICIPATING AGENCIES, AND, WHEN POSSIBLE, DEVELOPMENT OF PRIVATE RATHER THAN GOVERNMENT PRODUCTION. AMONG RECOMMENDATIONS FOR A TOTAL BOOK PROGRAM ARE--IMPROVED ORGANIZATION FOR BOOK DEVELOPMENT IN THE MINISTRY OF EDUCATION AND U.S. MISSIONS, A PARTNERSHIP BETWEEN CHILE'S GOVERNMENT, BOOK INDUSTRY AND UNIVERSITIES AND U.S. MISSIONS AND DONORS WITH SUBSEQUENT DEVELOPMENT OF A COMPREHENSIVE PLAN, AND STUDY OF PRESENT AND FUTURE BOOK RESOURCES AND NEEDS. RECOMMENDATIONS ARE ALSO MADE FOR BOOK ACTIVITY IN SPECIFIC AREAS OF EDUCATION, LIBRARIES, AND PUBLISHING. TABLES ANALYZE PRODUCTION ACTIVITIES, WHILE APPENDIXES INCLUDE EDUCATION IN CHILE, U.S. SCHOOL BOOK PUBLISHING, CONTACTS VISITED, AND A BIBLIOGRAPHY. A RELATED DOCUMENT IS LI 000 043, A STUDY OF BOOK ACTIVITIES IN PERU. (JB)

LI 000 042

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emerson brown • robert frase • harold lancour
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office of technical cooperation & research
agency for international development
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School of Education
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**international and
development education
program**

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U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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PREFACE

As must be the case in all studies of this sort, time is never sufficient for the people involved to feel adequately prepared to do what is required. Our team, as a whole, was in Chile only two weeks and individual visits were barely three weeks in length. We were limited as to geographical coverage and to time we could spend with any one of the wonderfully cooperative people with whom we discussed the book in Chile.

Major limitations came from a complete lack of lead time for both the survey staff and for USAID/Chile personnel.

We tried to concentrate on areas of greatest need and greatest potential -- textbooks in the formal system of education. The report will comment on other categories of concern as well, but not in equal depth nor with equal confidence.

Often, in the body of this report, we use the term "book" to mean any item, in written form, used by individuals or institutions for learning and development purposes.

The Team

The Chile survey team was made up of the following people:

Dr. Paul Watson (Team Coordinator), Professor of Educational Administration and International Education, University of Pittsburgh.

Mr. Emerson Brown, Vice-President of McGraw Hill Book Company (retired).

Mr. Robert W. Frase, Director of Joint Washington Office of American Book Publishers Council and American Textbook Publishers Institute.

Dr. Harold Lancour, Dean of the Graduate School of Library and Information Sciences, University of Pittsburgh.

Survey Approach

The team attempted to do two things: see as many people representing as many services, institutions, and efforts relating to survey objectives as possible; and gather as much written data from as many sources as possible.

To these ends we met with educators from both public and private institutions, government officials, representatives of public and private publishing and printing organizations, planners, representatives of the United States Embassy and AID Missions, staff of the Ford Foundation and Chile-California projects, library personnel, businessmen, etc.

We visited schools, universities, libraries, printing plants, book stores, research facilities, and attended meetings of professional groups.

We carried away with us reams of descriptive material, many impressions of book need and potential, and a profound respect and liking for the personally warm and professionally candid Chileans whom we met.

Acknowledgements

We are extremely grateful for the assistance given us by personnel of USAID/Chile, the U.S. Embassy, and of the various sub-projects and programs under U.S. sponsorship. We appreciate the kindness of the people of the Ministry of Education and other agencies, public and private, who gave us our impressions and our data. Names are listed in Appendix.

Special appreciation goes to Mr. Stanford Bradshaw, Report Officer, USAID/Chile who coordinated our work and to Gloria Novoa and María Antonieta Uriarte who were constantly telephoning, typing, and interpreting for us.

Finally, we are grateful to Miss Joanne Lindsay, backstopping officer of the project at the University of Pittsburgh, who made possible its smooth operation; Miss Carol Jones, Project Secretary, who aided in the typing and handling of this report; Miss Janet Suvak, Director of the International and Development Education Clearinghouse, who assisted in the library research; Mr. Edward DeCarbo, Graduate Assistant, who helped coordinate the artwork; and Miss Pat Truschel, who edited the report and supervised its production.

We sincerely hope that the report of the survey makes evident, to everyone who reads it, our deep conviction that books can and must play an ever-increasing role in the lives of all the people of Chile--especially the children and youth on whom the future of the country will depend.

INTRODUCTION

Chile, as of this writing, has a population in excess of 8.5 millions. The population, although heavily concentrated in the Santiago-Valparaíso area, is scattered over a country that extends 2,600 miles from north to south. At its widest point, it is little more than 200 miles across.

The extremes of climate at Chile's north and south extremities have forced the concentration of agriculture and commercial enterprise in the Central Valley. It is estimated that some 70 percent of the land area of Chile is too mountainous, too arid, too wet, or too cold for human habitation.

In Chile, economic dependence is centered around copper and nitrates, which account for some 90 percent of exports. Agricultural production has not kept pace with a 2.7 percent annual population increase, and has forced foreign exchange expenditures for food importation. There are sufficient deposits of iron ore, coal, and oil to support substantial industrialization.

Transportation facilities, essential to any economy, are inadequately developed. The great distances involved and the difficulties (created by terrain) of building roads and railroads across the mountains make an integrated system difficult.

Chile is a net importer from the United States--about 40 percent of its exports go to the United States and 45 percent of its imports come from the United States.

The government of Chile is a highly centralized force. The country is politically stable and historically has been committed to democratic processes. The present government (Christian-Democrat) has placed its emphasis on stabilization of the economy and upon national development, particularly in the field of education.

Chile is a socially-integrated country. The indigenous population (about 300,000) does not represent the economic and social problems common to the Andean countries to the north. Imbalances are rather in other demographic and economic areas: extremely uneven income distribution; heavy urban migration; housing shortages; and desperately low incomes for a large percentage of the population.

Recent Efforts in Education

One measure of the readiness of Chile for a concerted attack on the book gap is the degree to which real effort is being made on the education front. It is apparent that the present government is placing great emphasis on quantitative and qualitative improvement of education. Perhaps one might conclude that, because so much is being done, resources will not stretch to include books. We do not believe that this will be the case. It must be obvious to all that instructional materials are essential to success of the new effort. In reality, there is no alternative but to upgrade the quality and quantity of educational books.

Educational reforms in Chile have a solid conceptual base and have been outgrowths of experimentation in curricular and organizational change. They show an awareness of the need for flexibility in a student's experience and of his need for guidance. They have the potential, too, of giving professional-technical education a degree of respectability.

Support of these reforms has been substantial. The budget of the Ministry of Education for 1966 shows increases of over 80 percent for elementary and secondary education; 70 percent for industrial education; 55 percent for commerical; 60 percent for agricultural, and 35 percent for normal schools. The Ministry of Education budget represents 22 percent of the total national budget for 1966.

Under normal conditions the primary teacher training institutions graduate perhaps 1,600 per year, of which 800 are needed as replacements. In a crash program, begun in 1964, about 2,500 completed a two-year program i.. primary preparation in 1965. The responsibility for this program is placed with the Curso Especial de Formación de Profesores Primarias. It is designed for graduates of general secondary schools.

In 1965, there were about 175,000 more students in school than in 1964. The seventh year emphasis resulted in 960 new classes being created at that level. One of each six general secondary teachers has received in-service training through the Programa Nacional de Perfeccionamiento. One hundred fifty laboratories have been equipped in secondary schools.

Also in 1965, 6,038 new classrooms were placed in service. Many of these were replacements for those destroyed by earthquake and many were built with United States funds.

The Junta de Auxilio Escolar y Becas provided 800,000 breakfasts and 400,000 lunches daily and administered 17,500 scholarships to secondary school students and 2,000 to university students.

Education got 3.65 percent of the gross national product in 1965, a little short of the recommended four percent.[1]

In 1960, 82 percent of the population had received some degree of education. At present, it is estimated that one in four of the total population is some kind of educational program. The pressure on the system will continue, since nearly 40 percent of the population is under 15 years of age.

The drop-out problem dealt with specifically elsewhere in the report creates a "selective" system. In the University of Chile, only 2.5 percent of the students are children of laborers. Perhaps, with free education more obviously available, sons of laborers may continue their education a little longer.

We conclude that Chile is making a substantial effort, not only to improve traditional approaches, but to shift emphasis and try to serve new groups. It is critical for the youth of the country and for economic and development requirements that the effort succeed over the long haul.

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[1] U. N. Economic Bulletin for Latin America, Vol. III, No. 2 (Santiago, October 1962) p. 198.

Human Resource Status[1]

The economically active population of Chile in 1960 was 2,228,000 and is expected to increase to 2,879,000 by 1970, an estimated 32 percent of the total population. The 1960 breakdown was: agriculture, 29.3 percent; mining, 3.8 percent; industry, 18.1 percent; construction, 5.4 percent; electricity, gas, and water, 8 percent; commercial, 10.4 percent; transportation, storage communication, 5 percent; services, 27.2 percent. Projections for 1970 show that decreases are expected in the percentage of the active population in agriculture, mining, industry, and construction. Increases are anticipated in commerce, transportation and communication, and service categories.

The economically active population was, in 1960: 33.09 percent unskilled labor; 34.02 percent skilled; 14.84 percent with office and service skills; 14.72 percent technicians; 1.47 percent professional; and 1.86 percent managerial and proprietary.

The educational level of the active population is somewhat startling in a country with 80 percent literacy. No more than 18.81 percent have secondary education; 3.47 percent, technical-professional; and 2.48 percent, university. About 56.5 percent have a maximum of six years of education and 15+ percent have received no formal education. Nearly one-half of the managerial group have a secondary education and 30 percent have only primary schooling. Fewer that 18 percent of this group have education beyond secondary.

In the "technician" category, 14 percent were without instruction and 58 percent had only primary preparation. Office and service categories show 30 percent with primary instruction and 47 percent with secondary.

Projections for 1970 show that for every professional person, there will be 10.22 technicians, 10.12 office and service workers, 21.96 skilled and 17.77 unskilled workers. It should be safe to say that a primary education is not likely to be of maximum utility for any of these categories except, perhaps, the unskilled workers. Nor is a program, heavily weighted toward classical education, likely to be the most effective for unskilled or skilled labor, technicians, nor for many classified as professionals and office and service personnel.

Some Guidelines and Assumptions

We have attempted to make clear throughout this report that books are a critical need in Chile, particularly for elementary and technical-professional education, and in technical and scientific fields generally. Chileans know this better than anyone else and are aware that they cannot attack the problem alone. We would add that neither can the United States attack the problem alone, not even with the consent of the leaders in Chile.

One might argue, and with some logic, that a few book firms from the United States, given free rein in Chile, would soon develop a book industry that would do the job. Another might protest that only books by Chilean authors are acceptable to Chile. Both would be ridiculous suggestions. We are searching for ways to get books into the hands of students and their teachers and to do so through Chilean resources, where possible, and through international channels, where reasonable.

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[1] Source for data presented under "Human Resource Status" was taken from an analysis of 1960 Census data made by the Superintendencia de Educación, Oficina de Planificación, April 1966.

There are several elements which must be taken into account. The "easiest" or "most efficient" or "most rapid" solutions are not going to work because short cuts will create logistical and personality problems that will block success.

If a comprehensive book development program is begun for Chile, it will require commitment of money, manpower and time by government and private sector agencies in Chile and the United States. There can be no assumption that the program will somehow be coordinated and focused--the coordination must be planned for. Neither country, nor other donor agencies and firms, can afford to embark on such a program with "fingers crossed."

Assumptions

1. **The book, in Chile, has historically been a cultural asset rather than a practical tool. Its acceptance as a tool will not come overnight, nor will it be used skillfully without training programs for those who must make it effective.**

2. **Public resources for support of book production are limited and will remain so for a long time to come. However, commitment of available resources must be made by the Government of Chile.**

3. The publishing process is underdeveloped in Chile.

4. **A stabilized and efficiently administered system of education is a prerequisite to the production of quality textbooks.**

5. **Chile is ready for the program. Its educational and development requirements demand books. Its private sector is capable of the technical production, and its leadership understands the problem.**

6. **Certain book markets are limited and importation of books, in reference to those markets, will always be necessary. Regional development will be required.**

Guidelines

1. **A book development plan must include the participation of all groups which may be affected by that plan:**

   a. Strong printers' unions exist and their leadership should have a voice in plan structure and implementation.

   b. **Authors, where competent ones are present, must be protected in pride and pocketbook.**

   c. **Power which resides in certain printing firms, paper producers, and distributors must be respected. Representative presence in planning and implementation is essential to success.**

   d. The United States and donor agencies should expect to be excluded from strongly influencing book content in culturally sensitive areas. But the United States should not be expected to support a complete from author-to printer-development program in non-sensitive areas such as mathematics or science. The United States has already spent millions of dollars in developing such materials.

e. Responsibilities of each participating agency for book development must be clearly defined and agreed to before the program is begun.

f. Where possible, the book development program should result in development of the private book industry rather than in an assumption of responsibility by the government.

SUMMARY OF RECOMMENDATIONS

Our recommendations are divided into two categories: (1) those which are applicable to a total book program for Chile and (2) those which are discrete and specific to one area of need.

General Recommendations

1. Because of the scope of the United States Mission interest in education in Chile and its specific concern about books, we suggest the addition of an education officer with special interest and competence in book development.
2. The present organization of the Ministry of Education is unwieldy and the areas of responsibility are not clearly defined. We suggest that the Ministry continue its self-study with an eye to developing a clear organization for book development. USAID should supply technical assistance if requested to do so.
3. If a full-fledged book development program is anticipated, a firm partnership should be developed among the Government of Chile (Ministry of Education), the private sector in Chile (book industry), the Universities, and the United States Missions and United States based donor agencies. The first effort of the partnership should be to prepare a complete book development plan and to establish the responsibilities of each partner. Eventually, we surmise that:

   The Government of Chile may provide:

   a. leadership and statistical services

   b. clerical assistance and space

   c. professional staff

   d. textbook guidelines and standards

   The private sector may provide:

   a. equipment and facilities

   b. interns to study publishing, editing, design, etc.

   c. some subsidy in form of lower profit ratios, paper cost reductions, etc.

   d. authors

   United States Missions and donor agencies may provide:

   a. technical assistance in publishing, editing, design, and marketing areas

b. seed money

c. Regional and international links

4. In order that the above recommendation can be most effective, we recommend that United States Agency for International Development fund a study to be conducted jointly by the Consejo de Rectores and the Ministry of Education's planning group, of the specific book needs--by subject and level--culminating in recommendations of in-country development and/or importation.

5. Insofar as schools are concerned, needs must be translated into a per-student factor. Example: if it were determined what $1 would buy per student in the way of finished books, the public and private sectors of Chile could decide what part of that $1 each can accept as its responsibility. U.S. assistance should be applied to initial development only.

6. The Textbook Depository Library, developed at the University of Pittsburgh under contract with USAID, should be provided, through United States funds, to central locations in Chile. It will provide examples of quality texts in all fields and at all levels and will add, substantively, to certain library facilities.

7. The problem of knowing just what is available in Chile is a considerable one. We suggest that the Ministry of Education organize a study to ascertain available books and other materials written in Spanish (whether in or out of print) and classify them by grade level and subject matter. A comprehensive bibliography could then be developed for use by book development planners (see No. 3).

Specific Recommendations

General Basic Education (Grades one through eight)

1. Currently available elementary school reading texts, developed and produced by the Ministry of Education, should be made available to every child in the primary schools of Chile.

2. Classroom sets (or libraries) of available supplementary books covering the appropriate range of subjects should be made available to every classroom in grades one to six as quickly as possible.

3. A teacher's manual should be developed which will describe how to use supplementary materials in the classroom.

4. The Adelante, Pre-primer, and four primers, developing with the assistance of the Ford Foundation group in Chile, should be mass-printed and provided to primary schools as quickly as possible.

5. The book development program, suggested under General Recommendations, (p. 6, No. 3) should result in basic texts for social science, science, mathematics, and language.

6. The production of "quality" hard cover books should not be attempted at the moment. Because of the state of flux current in the educational system, text books for the primary schools should have a built-in obsolescence. There

is no such obsolescence factor so far as the classroom collections of reading books are concerned (No. 2).

7. A reading-level and vocabulary study of children at various ages should be conducted to determine appropriate context and structure of books developed for primary education.

Technical-Professional

1. Reference sets of materials, in Spanish, should be purchased for libraries of all schools and agencies concerned with agricultural development and education. Other books in English, which can be adapted and translated, should be obtained and considered "high priority" in the USAID book program.

2. The Ministry of Education and the Ministry of Agriculture, with the proper technical assistance, should sponsor the production of bulletins and books in agriculture required by local differences.

3. Since books in technical-professional category are culture-free, importation and adaptation of United States books are legitimate and logical. These may be obtained through regular RTAC channels or in Chile.

4. The importation of English language books in certain fields at certain levels should be arranged.

Teacher Education

1. With USAID assistance, professional periodicals and English language books should be provided to agencies and institutions responsible for preparing teachers.

2. Basic texts in teaching methods, educational psychology, educational supervision and administration, and guidance should be adapted and translated and made available commercially to all teacher-training institutions.

3. The Ministry of Education, through its regular channels, may consider a special training element, in all teacher-training programs, designed to help teachers use books as teaching tools.

4. All textbooks should be accompanied by teachers' editions or manuals; whether prepared in Chile, imported from other Latin American countries, or adapted from English.

Libraries

1. We suggest that the Ministry of Education and USAID/Chile consider consultant assistance in the following areas:

   a. inventory of libraries in all categories.

   b. development, in conjunction with existing professional library groups, of a national plan for library development.

   c. development of school library standards, in league with a well-prepared Chilean librarian.

   d. to apply standards already developed by Latin American study groups to.

the Escuela de Biblioteconomia of the University of Chile.

2. In order to provide models for library development, we suggest that two complete demonstration libraries, including building, collection, and head-librarian be created.
    a. as a municipal public library which is a community, cultural and educational center.
    b. as a combination school and public library in or near a public secondary school.
3. We suggest schools meeting standards (No. 1-C) be provided with pre-catalogued basic school libraries, possibly through program loan funds.
4. In order to add to the cadre of trained librarians, the agencies involved should consider scholarships to United States institutions for study in library science programs.
5. The present Library School and the most advanced university library should be given grants, by donor agencies, to encourage their further development.

Publishing

1. A special conference should be arranged in Santiago which brings members of the Cámara Del Libro, American Textbook Publishers Institute, and experienced textbook publishers from other Latin American countries together to discuss the industry and its development.

General Secondary Education

1. The Ministry of Education may wish to explore: textbook rental plans for selected schools; book coupon plans.
2. A reading-level formula for Chile should be developed to insure proper, usable texts.
3. Textbook collections should be made available to central locations, accompanied by related materials from other media, sample programmed books, and teachers' editions.

Higher Education

1. The United States missions should explore the possible development of a highly selective list for book-subsidy programs with greater emphasis upon technical-professional books.
2. United States agencies should investigate import agreements which will aid Chile to obtain the English language technical and vocational titles most required by students and professors, which might be paid for in local currency.
3. New textbook development, supported by United States agencies, must be done on a regional or continental basis. A special glossary should be added to each copy according to country of destination.

THE ROLE OF BOOKS IN CHILE

There is little doubt that book consumption in Chile exceeds that of any other Latin American country on a per capita basis, according to data reported to UNESCO. In 1964 there were 11,080,000 copies of books and pamphlets produced of which 1,992,000 were school textbooks and 184,000 were children's books. The ratio of 1.3 books per capita may be compared to 1.0 per capita in Brazil and slightly less in Argentina. For some of the highly developed publishing nations the ratios are: United States, 6.0, not including pamphlets and government publications; Soviet Russia, 5.5; France, 3.8; yugoslavia, 3.8; Rumania, 3.5.

The 1.3 ratio of books produced in Chile per capita is swelled by substantial importation. There is a tendency to restrict importation (or credit for importation) of general literature books and to encourage importation of technical books. To be conservative we shall estimate that per capita consumption of books in Chile is two to three. Even on that basis, it is an impressive ratio..

Most of the imported books found in bookstores, both private and university, are from Spain, Mexico, and Argentina. It appears that books from these sources are the bulk of available text material for secondary and higher education and of encyclopedias sold by subscription.

To a considerable degree, however, it may be said that the book has not become a powerful tool for economic and social development in Chile. At least, books have not served such a function for the general population. At most, they have provided the highly educated minority with cultural and intellectual food. Still today, in an enlightened and integrated Chile, the worker, the child in school, and the majority of the population have limited access to books.

TEXTBOOKS IN GENERAL BASIC EDUCATION

Recent reforms, reported in Appendix A, call for a reorganization of the regular school system. Eventually General Basic Education will include the first nine years of school. Basic planning, however, has been done through the first eight years and, for the purposes of this study, General Basic Education is defined as grades one through eight.

Pre-primary Education enrolls only 48, 663 children (1965) in both public and private schools. The number involved here and the pressing need elsewhere lead us to ignore this level for the purposes of the study.

General Basic Education

The new effort in structuring the system for education in Chile is an interesting one. It is based upon experimentation and observation and is an effort toward relating the educational experiences of the child to the realities of his environment. Its aspirations will not be met immediately, of course. In fact, unless quantities of instructional materials of good quality can be developed, produced, and distributed quickly, it is doubtful to us that the reforms will result in real change.

Preliminary plans call for a curriculum for General Basic Education which is shown in Table I.

The plan is being implemented in two-year blocks beginning with grades one and two but with some implementation also taking place at the seventh grade level. The plan's basic departure from the former curriculum is in increased flexibility and greater attention to curriculum-related activities and guidance.

The children enrolled in the first six grades of the public schools are virtually without textbooks or books for reading. Unless a parent, a teacher, or the Junta Nacional Auxilio Escolar y Becas happens to have supplied a few books, the chances are that a child will not have access to a textbook. In 1965, the Ministry of Education supplied 607, 000 texts and 400, 000 sets of notebook paper, pencils and erasers to the public schools.[1] Statements by Ministry personnel indicate that most of the texts had to be sent to teachers and the 400, 000 supplementary sets of expendable materials could have supplied only one in three of those enrolled in the first six grades of the public schools.

The private schools fare perhaps a little better since, presumably, the children come from a more favored economic situation. The church schools receive some instructional materials from two religious orders which operate crude printing machinery. Even in these instances, however, the books are not part of a planned sequence of materials or content.

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[1] "Sinopsis del Programa de Educación 1965-1970," preliminary version. An unpublished document of the Oficina de Planificación, Superintendencia de Educación, Ministerio de Educación Pública: (Santiago 1966).

TABLE I--PRELIMINARY CURRICULUM PLAN GENERAL BASIC EDUCATION[a]

Grades	1 and 2		3 and 4		5 and 6		7 and 8	
	hrs. per week	% of total	hrs. per week	% of total	hrs. per week	% of total	hrs. per week	% of total
Language			5	19	5	16	5	16
Arithmetic			5	19	5	16	5	16
Natural Science	12	50	2	8	3	10	3	9
Social Science			2	8	3	10	3	9
Physical Education					2	7	2	6
Technical Education	8	33	8	30	4	14	4	13
Art					2	7	2	6
Music					2	7	2	6
Complementary Activities	3	13	3	12	2	7	4	13
Group Guidance					1	3	1	3
Religion[b]	1	4	1	4	1	3	1	3
Total Hours	24	100	26	100	30	100	32	100

[a] "Sinopsis del Programa de Educación, "Ministerio de Educación Pública, Superintendencia de Educación, Oficina de Planificación, 1965-1970, p. 55.

[b] Optional.

For most pupils, then, the teacher is the content source as well as method. Thus the teacher provides arithmetic rules, the examples, and the problems for the pupils to solve. All of these the pupils transfer to their copybooks. Although it is easy to assume that the lack of textbooks forces the teacher to adopt the pattern of teaching she follows, it may be that the converse is true--the pupils do not have textbooks because they are not essential to the method of instruction which has memorization as its goal.

If the goal is to change the didactic method of instruction to one of pupil learning through activity, through discovery, and through self-instruction--then modern textbooks can become the instruments of change. The textbooks can become the instruments for a "new teaching approach."

It is obvious from current effort by the Ministry of Education, that the goal is change. Chile's educators are fully aware of the interdependence of factors in the educational environment: inadequate teacher preparation, deficiency of instructional materials, lack of supervisory assistance to teachers, reliance upon outmoded method, high drop-out and failure rates.

Because of the interdependence of the problems, the improvement of any one problem helps to improve all others. If the deficiency of instructional materials can be partially solved by the introduction of modern textbooks developed as a series for each subject and available to all the pupils in all grades, the textbook problem will help to solve all the other problems through mutual interaction. For example, textbooks will provide the untrained teacher with a "teaching assistant." They will make it possible for teachers to individualize instructions. They will, we believe, enable pupils to teach themselves and thus reduce failures and dropouts.

Chilean educators have begun to attack these problems systematically. With the assistance of the Ford Foundation, the Ministry of Education has established a Curriculum Development Program. According to information supplied by Ministry and Ford Foundation personnel, the current status of the Program is as follows:

Reading - With U. S. consultant assistance a committee has developed a reading program for grades one through four. At this date, the manuscripts have reached these stages:

Reading Readiness (Adelante) - This is a 38-page booklet presently available in mimeographed format, reproduced on one side of each page and stapled. Fifty thousand copies of this book have been used in experimental schools. Although this reading readiness booklet has not, to the best of our knowledge, had any editorial or design attention, it is ready to go to press. The Ford Foundation has made a comparative study of the costs of publication by a commercial press and by government press. There is a teacher's guide.

Pre-primer - 2,000 copies of the 60-page pre-primer were printed for a trial run. Apparently, differences of opinion about the pre-primer have hindered its progress.

Primer - The classroom trials of the primer are to be completed by December 15, 1966. The feedback is to provide a basis for a revision.

Four Readers - The series, according to interviewees, is to include four readers: one for each of the first four grades.

As to the theory of reading underlying the series, apparently it is a compromise between the linguistic approach and a more traditional one. The series, however, is not only planned but also partly ready for publication.

Arithmetic - Under the sponsorship of the Ford Foundation, four mathematics teachers from Chile have been selected to study mathematics education in the United States. Upon their return, they are to write new mathematics textbooks for the first four grades of the Chilean elementary schools.

Social Studies - In social studies, commissions and committees are now revising the whole social studies curriculum. The new curriculum for the first four years is complete. Apparently this project does not include the preparation of manuscripts. It should provide, however, guide lines for authors.

Science - We were told that a new curriculum for science is ready. Because of its traditional approach, it may not provide a developmental program leading to the new science program being developed at the high school level.

Language - If there is a committee at work on curriculum for Spanish composition and grammar, we were not directed to it.

The Curriculum Development Program is an excellent beginning. It suffers, however, from not having involved technical people--publishers, editors, printers. In fact, there is doubt about who will publish the reading series, for example, or whether it will be published at all.

Ideally, we are talking about affecting materially the process and product of the educational program for Chile. If books are to play their full role as instruments of change and improvement they should meet these standards:

1. They should be developmental from grade to grade.

2. They should be organized and written to make use of the best the specialist knows about the way young people learn.

3. They should, in content, reflect recent research and scholarship. The language textbooks and readers should reflect the research of the linguists, for example. The mathematics textbooks should be based on modern mathematics.

4. They should be organized and designed to motivate the pupil to learn by self-instruction. For example, they should include periodic reviews, self-tests, guides to discovery, exercises to assist pupils in testing and fixing generalization, and perhaps, for some topics, should be programmed.

5. They should be illustrated, designed, and printed to encourage young people to study.

6. They should be accompanied by teacher's editions or manuals that will assist the teacher in doing her job better. For the unqualified and untrained teacher, they should literally provide day by day self-instruction for teaching each lesson.

7. They should be nuclear textbooks that are accompanied by other instructional materials, such as work books, tests, records, activity kits, film strips and other audio-visual instructional materials.

8. They should be available at the beginning of the school year and throughout the year to each pupil, in each of the intellectual subjects, in each grade.

By making high quality textbooks available to all pupils in all subjects, in all the elementary grades, the Ministry of Education will not only solve to a large extent the instructional materials problems, but it will also help to solve many other problems that vex elementary education in Chile.

Although the introduction on a per-pupil basis of the type of textbooks we have described is by no means a cure for all educational ills, it would in our opinion, do more to advance education in the shortest possible time and at the least cost than any other single innovation. In reaching this conclusion, we do not intend to discount either teacher training or new building. Without textbooks, however, the teachers will be handicapped immeasurably in their efforts to make full use of their training.

Realizing that excellent textbooks do not magically appear in large quantities, we wish to explore some ways in which the book gap can be attacked realistically.

Ministry of Education Readers

The Ministry of Education has a series of three readers for the first six grades. We were informed that probably not more than one child in five actually has one of these readers. We suggest that every child be assured the minimum of the reader appropriate to his grade as the first step toward books in the elementary schools. These readers could be printed, on contract, by local firms which have excellent, low-cost production facilities. We suggest that the Government of Chile provide necessary funds for this immediate effort.

Survey of Available Materials

One major problem is that there is no systematic way in which one may find books which are available in the various subject areas. We suggest that the curriculum teams currently at work be joined by well-prepared librarians and that bibliographies be prepared of all materials in Spanish. These books may be in or out of print, in Chile, or readily available from other countries. Once the lists were compiled, copies of the books should be obtained and examined and, finally, classified as to grade level and content. This search and study is suggested as an attack upon the book gap from the idea of using all available supplementary resources during the textbook development period.

Classroom Sets of Supplementary Books

From the classifications developed by the process suggested above, priorities based upon availability, utility, and economy should be established.

For the consideration of the Ministry and donor agencies, we recommend that they combine their efforts to provide sets of supplementary books selected from these priority listings. The titles should be selected on the basis of their appeal to the interests of the pupils and their educational needs, and graded for appropriate reading ranges. Each classroom set, for example, could include books about science, lands and peoples, heroes and history, and books of folklore, fiction, and poetry.

In so far as possible the books should be original works written in Spanish, with titles by Chilean authors given first priority. If there is not a wide choice of original Spanish works, we recommend that titles in languages other than Spanish be selected for translation and adaptation.

If the classroom contains only one grade, the set would include titles for that grade. If the classroom contains several grades, the set would include titles for pupils enrolled in all the grades.

The number of books in each set would depend, of course, on the per-pupil allocation for the books and their cost per title. If, for example, the allocation should be 75¢ per pupil in the initial effort, the total money available would be in excess of $750,000. At an average of a dollar per volume, $750,000 would provide a set of about 25 books for each of 30,000 classrooms.

Although the purchase price of $1 a volume is an estimate, the allocation of 75¢ per pupil is sufficient to provide a minimum library that would make books available to all pupils for reading enrichment and for the application of reading skills. If 75¢ per pupil cannot be made available, the allocation could be less and still provide some books for pupils to read. Any number of books is better than no books at all.

In addition to the cost of the books themselves, there would be additional costs: warehousing and packaging, distribution, etc. Too, since classrooms may not have adequate storage, the sets should be shipped in containers that could be used for storage cabinets.

As to the responsibilities for selecting, distributing, and funding of the books, we suggest it be shared between the Ministry and a donor agency or agencies. The selection of the titles, translations, and adaptation of titles for distribution would be the responsibility of the Ministry. The funding of the books and the cabinets would be the responsibility of the donor(s). In addition, the donor agency would be responsible for securing translation and adaptation rights and the services of a consultant with a fingertip knowledge of books published in other countries to assist in the selection and grading of the titles.

Teachers Manual

Since using supplementary books may be a new concept to many teachers, they should receive in-service training if they are expected to use the books to their full advantage. So that teachers will have assistance, we also recommend that each cabinet include a manual for teachers on the use of supplementary books as a part of the instructional process. It is difficult to overestimate the importance of teacher acceptance of and skill with the classroom sets because the success of the venture depends upon the teacher in the classroom.

Although these books are not a substitute for basic textbooks, they provide the pupil with a purpose for acquiring reading skills. They broaden and enrich his experience, and, for many provide an incentive for attending school. An intelligent child must often question the logic of placing emphasis upon reading skills when there is no opportunity to apply those skills.

Basic Textbooks

As a means of improving elementary education--one which we believe will bring remarkable results--we recommend the continuing development of the textbook program which the Ministry has already launched. This program, given adequate technical and financial support, will provide a modern textbook for each pupil in each intellectual subject in which he is enrolled: reading, language, spelling, mathematics, science, and social studies. At this writing, reading readiness books, readers, and mathematics books have been developed or planned (p. 14). These materials, forming the nucleus of a full-blown textbook program, will be completed and supplied over a period of years, thus allowing planned financing and a gradual increase in the fiscal burden. A schedule to prepare and publish these books is seen in Table II.

As a short-term first step in the introductory textbook program, we recommend the printing of the readers in sufficient quantities to distribute them to all pupils, and

TABLE II

Reading	1967	1968	1969	1970	1971	1972	1973	1974
Adelante	x							
Pre-Primer		x						
Primer		x						
Readers 1-2			x					
Readers 3-4				x				
Mathematics								
Book 1				x				
Book 2					x			
Book 3						x		
Book 4							x	

the publishing of the pre-primer and primer manuscripts with a printing of sufficient quantity for distribution to all pupils enrolled in the beginning reading course. We recommend that financial aid be provided to assist the Ministry in carrying out this program.

USAID, with a view to immediate publication of Adelante, should explore fully the intentions of Ford and the Ministry. On the basis of such exploration we would recommend to AID that they consider partially financing the publication and distribution of Adelante on a per pupil basis. This plan might be worked out as a three-way project involving Ford, AID, and the Ministry of Education.

The manuscript for Adelante and subsequent manuscripts for readers should be thoroughly edited by an experienced American school-book editor and should have the benefit of the skills of an elementary textbook designer and production specialist. By publishing Adelante, both the Ministry and AID will gain experience for future endeavors.

For this project, the question of a commercial publication versus Ministry publications need not arise because it is strictly a printing job. There are at least two firms in Santiago which could do an excellent two or four-color printing job.

The potential market for a book program for grades one to six (the compulsory and free levels) is shown in Table III.

The projections show expected increases of substantial sizes during the next five to 15 years.

To provide a background for later recommendations, we first present a series of questions which must be answered in depth. Some of these questions we can suggest answers for--others were beyond the scope of our study.

1. What is the capability of the government of Chile to provide funding for a free-textbook program? We can assume that, given current inflation rates, decreased production in some vital areas of the economy, demands upon the educational allotment for improved teachers salaries, more classrooms, etc., Chile simply is unlikely to assume full responsibility for textbook development. But, precisely what part of the responsibility can the Ministry assume? We do not know.

TABLE III--DISTRIBUTION OF STUDENTS BY GRADE LEVEL
PUBLIC AND PRIVATE SCHOOLS

Grade Level	1954[a]	1965[a]	1970[b]	1980[b]
1	191,300	445,400[c]	297,459[c]	372,547
2	179,800	295,100[c]	278,125[c]	354,284
3	154,300	258,000	267,872	352,479
4	106,900	220,900	279,642	337,660
5	75,500	172,300	299,504	318,063
6	55,400	137,000	199,334	294,420
Totals	763,200	1,528,700	1,621,936	2,029,453

[a] "La Reforma Educacional Chilena y sus Proyecciones," Ministerio de Educación Pública, Cuadernos de la Superintendencia, (Santiago, Chile, 1966), pp. 46-47.

[b] "Estimaciones de Matrícula por Curso y Edades para el Sistema Regular de Educación. Años 1965-1980," Ministerio de Educación Pública, Oficina Coordinadora del Planeamiento Educativo, (August 1965, unpublished document).

[c] Note: The decreases projected in grades one and two enrollment are created by "automatic promotion" in those grades beginning in 1966.

2. What role does the Ministry and its curriculum planning committee expect to play over the long haul, in writing, editing, etc. of text material? Many with whom we talked want the private sector to assume more and more responsibility. Others believe the Ministry should "go into business." Still others suggested that the private sector should publish the books but it is not clear what the term "publish" means to them. We fear that it means "printing" only. Our bias is that the private sector should assume all reasonable responsibility for the "business" of publishing; working with authors, editing, designing, and printing as quickly as possible. The Ministry should, in our opinion, move gradually from manuscript preparation to guideline adoption; from the "business" to curricular control and textbook standards. In the interim, we believe it is essential that the public and private sectors form a partnership for learning purposes so that, as the shift takes place, it can be made with full understanding of roles and responsibilities and with mutual confidence.

3. What is the level of readiness of the private sector to assume more and more responsibility in the textbook field? Our findings lead us to conclude that the technical production capability is there. Not currently in evidence are editorial skills, experience with textbook design, curriculum standards and experience in cooperation with the public sector. Too, each firm tends to try to be internally complete so that economical divisions of labor are sometimes not made. Psychologically, the private sector is ready and eager to perform in fields where a market is at all evident. After all, there seems little reluctance to produce a book with a run of 2,000 to 3,000 copies. The early school years should provide a substantial market. Our discussions with printers and publishers lead us to conclude that they are ready, capable in the production field, and eager to learn the skills they do not now possess.

4. What per-unit cost can be expected? Again we cannot say. The total process of textbook development has not been tried in Chile. How much can present costs be reduced by producing textbooks in relatively large quantities on the modern high speed presses now being used for magazine work? These questions can only be answered through much study and negotiation.

5. Related to No. 4 but bringing the question to bear directly on the problem--what would be the annual per student cost of a textbook program which would put one book per subject per grade in the hands of every child in the first six grades of the public schools in Chile--over a five - year period? over a 10-year period? This requires much more economic study.

6. What system of distribution will be most effective in Chile?

7. To what extent are the private and parochial schools likely to purchase the textbooks once they are produced?

8. If a partnership is essential to the attainment of the goals implicit above, what is the proper role of the partners--Government of Chile? Publishers and printers? Donor agencies?

For the consideration of the Ministry, we suggest a textbook commission composed of distinguished educators and laymen be appointed to direct the study necessary to answer these questions beyond the answers we can provide.

We suggest the study be conducted by a team of consultants which should include specialists in: school finance, management, editing, production, design, the economics of textbook publishing and printing, and equipment.

The team should have sufficient time to conduct a feasibility study in depth with the expectation that it not only will serve its purpose in Chile, but will also be a prototype for other countries.

We recommend that a donor agency provide the financial aid required to carry out the survey.

We do not suggest this approach as a way of ridding ourselves of responsibility for answers. We are convinced that this study is an answer. Individual aspects of problems of books, textbooks, and libraries have been studied by many people in the past few years. Because these studies have been done in isolation, results have been negligible. Unless a structure for building an overall textbook program is begun and ardently defended and maintained, our study will result in very little of moment. The specific suggestions we have made, if followed, would help but they would not assure long-term attention and continuous action.

The study we are suggesting is not just a study. It should be an exercise in cooperative action. It should be staffed by some of the many brilliant educators of Chile, economists, foreign technicians, representatives of the Chilean book industry, and authors. It should focus the attention of the many people and projects, reforms, and efforts on this one problem--textbooks for children. In the process, authors should learn the discipline of textbook writing; the private sector should learn improved design, editing, and production techniques; Ministry personnel should learn how to set standards for future books and to plan long-term amortization of public investment in books. Our guess is that, in over-all economic terms, the drop-out and the class repeater are a much greater drag on Chile's resources than a full-blown textbook program would be.

We have been dealing specifically with grades one to six. Now that grades seven and eight are a part of General Basic Education and the nation aspires to the provision of eight years of education to 90 percent of the age seven to 14 population by 1976,[1] attention must soon be directed to that level also. These grade levels do present a different problem. For grades one through six, to all intent and purposes, there are no textbooks. Beginning with grade seven, there are textbooks available in most subject fields. We feel that these need desperately to be improved, more widely available, and more sequentially developed, but there are books. Since six years of education are now mandatory and free and, since the largest school market is present at those levels, we feel it appropriate for the Government of Chile, the private sector, and foreign helping agencies to concentrate there. Too, the process we have suggested for long-range attack will naturally grow toward the upper grades and will provide the knowledge necessary in the development of books for all levels. Enrollments in grades seven and eight and trends are shown in Table IV.

TABLE IV--DISTRIBUTION OF STUDENTS BY GRADE LEVEL
PUBLIC AND PRIVATE SCHOOLS

Grade	1954[a]	1965[a]	1970[b]	1980[b]
7	46,500	90,200	149,462	280,554
8	33,400	69,100	110,042	253,826
Totals	79,900	159,300	259,504	534,380

[a] Ministerio de Educación Pública, Cuadernos de la Superintendencia, "La Reforma Educacional Chilena y sus Proyecciones, Santiago, Chile," 1966, pp. 46-47.

[b] Ministerio de Educación Pública, Oficina Coordinadora del Planeamiento Educativo, "Estimaciones de Matrícula por Curso y Edades para el Sistema Regular de Educación," Años 1965-1980, August, 1965 (unpublished document).

We suggest these possibilities with the humble awareness that we (the United States and U.S. based foundations) are as likely to spread our concerns and lose coordination and a long-range view of technical assistance and financial support needs.

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[1] "Sinopsis del Programa de Educación 1965-1970", op. cit.

ERRATA

Paragraph 2, page 20 should read:

We suggest these possibilities with the humble awareness that we (the United States and U. S. Based foundations) are as likely to spread our concerns and lose coordination as is anyone. The process, inherent in the recommendation, should force coordination and a long-range view of technical assistance and financial support needs.

TEXTBOOKS IN SECONDARY EDUCATION--GENERAL AND VOCATIONAL [1]

At the secondary level, generally, the textbook problem changes character. The potential market is smaller and more diversified. Education at this level is not yet compulsory, nor is it free. There are more books available which can be used as texts. As was stated earlier in reference to books for grades seven and eight, much could be done to improve the quality of textbooks. They are not developed sequentially and are often encyclopedic, relying heavily on isolated facts rather than encouraging students to develop concepts and solve problems. In spite of better availability purchases of textbooks is economically unfeasible for many.

Precisely what effect the new plan for secondary education will have on certain special schools now operating is not yet known. In general, the secondary system will be divided into two tracks: Humanistic-Scientific, and Technical-Professional. Since the Ministry of Education wishes to permit movement between these tracks and to assure graduates of the Technical-Professional course entry into universities, there will be a great deal of subject matter in common between the two.

Enrollment in the newly defined secondary school grades is shown in Table V. Later we shall attempt to break these figures into other categories to show more specific market potential.

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[1] Note: We have permitted some overlap of content in this chapter with that of the previous chapter. This is because the book problem in grades seven and eight has greater similarity to that of subsequent grades than it has to the first six years of education.

TABLE V--ESTIMATED DISTRIBUTION OF STUDENTS BY GRADE LEVEL
PUBLIC AND PRIVATE SCHOOLS

Grade	1954[a]	1965[a]	1970[b]	1980[b]
9	23,800	53,400	87,832	226,317
10	18,100	42,800	76,949	205,938
11	12,900	31,000	59,441	175,562
12	9,800	19,500	40,471	151,627
Totals	64,600	146,700	264,693	759,444

[a] "La Reforma Educacional Chilena y sus Proyecciones, Santiago, Chile," op. cit.

[b] "Estimaciones de Matrícula por Curso y Edades para el Sistema Regular de Educación, Años 1965-1980," op. cit.

Humanistic-Scientific Books

For general secondary education, the textbook pattern is already well-established. Beginning with the grade seven and continuing through the grade 12, textbooks are an integral part of the teaching process. Although the method of instruction is based on the teacher's lecture, each student is supposed to have a textbook for each course available to him for independent study. The lecture, the textbook, and the examinations are the cornerstones of instruction in general secondary education.

For the production and distribution of textbooks, Chile has many advantages, including a publishing industry and a substantial modern printing capacity and an expanding school population. As to the Ministry's textbook policy, it is characterized by: (1) textbooks published in the private sector; (2) textbooks selected from a list officially approved by the Directorate and adopted for use in the public schools. The Ministry's approval policy is inclusive rather than exclusive. As a result, any textbook fulfilling the general content requirements and written by qualified authors is likely to be placed on the official list.

The production and distribution of textbooks in Chile proceeds along these lines:

1. Publishing decisions rest with textbook publishers.
2. Authors seek publishers or publishers recruit authors to write the books and compensate them for their efforts.
3. Publishers process the manuscripts.
4. The publishers print and bind the manuscripts they publish, since most publishers are also printers.
5. The publisher submits the title to the Ministry for approval.
6. The publisher distributes the textbooks through his marketing outlets--sending new book announcements and copies for examination to each school.
7. The publishers call on the booksellers or retailers who order the titles from the publishers for distribution to pupils.
8. The teachers and administrators examine the textbooks submitted to them and select the titles they wish to adopt for classroom use.
9. The teachers notify the pupils of the adopted titles they are expected to purchase.
10. The pupils purchase the titles from the booksellers.

Although there is no desire to make U.S.-Chile comparisons, it may be worthwhile to note some differences which are relevant to understanding a possible role of a newly developing textbook industry.

U.S. publishers maintain, through representatives, close liaison with educators at all levels. These representatives are in constant contact with teachers, provide assistance in how to best use their publications, hear criticism, etc. They produce books in series, rather than in single editions, to provide for learning continuity. The publisher employs an editorial staff which works with authors from the beginning of manuscript

The Economics of Publishing

The size of the market sets definite limits for the publisher. According to the economics of publishing, the publisher must include in the price of a title an amount that will return to him the capital he invested in preparing the plates for publication. This plate cost includes investment in manuscript development, typesetting, illustrations, and in plate preparation. The revenue he receives from the books he sells during the time they are in print is necessary to publish new or revised titles. The more copies of a title the publishers can reasonably expect to sell, the less he includes in the price to amortize the plates.

In order to stretch the amortization over enough books to keep the price within the range of the pupils' purchasing power and to maintain a favorable competitive price, publishers who face a limited market are forced to "cut the cloth to fit the pattern." To keep both plate and printing costs low, and at the same time to include the content required by the syllabus, they crowd the content into as few pages as possible by using small type and minimum leading between lines. To get his plate costs returned to him and to provide a profit, the publisher may be forced to keep a title in print long after it should be revised or replaced by a new title which is modern in content and method.

The size of first printings and of reprints also affect the economics of publishing. The cost to "make ready" for a printing run of 1,000 copies is the same as the cost for a "make ready" to publish a run of 25,000 copies. Although the high-speed presses effect economies in the per-unit cost of printing in black and white or in color, these economies, because of "make ready" costs, cannot be realized unless the runs are 25,000 copies or more.

Because of costs incurred from small printings and high amortization rates, publishers, in order to keep prices competitive and within the range of the buyers, are often forced to lower the quality and change the content of the textbooks. To keep paper, printing and binding costs down, they often reduce the number of pages by cutting down on the number of selections in anthologies, or by reducing the number of examples and problems.

With wider margins between production costs and price, the publisher, too, would be more likely to have the needed capital for an adequate editorial and design staff. The problem of the cost of books is not only one of keeping prices as low as possible, but also one of publishing textbooks that are up to date in content, and that are written, edited, and designed to conform to the best methodology.

Prices and Purchasing Power

According to the prices supplied to us, the cost of books for grades 10 and 11 that are available in bookstores appear in Table VII.

Although the number of students enrolled in the secondary school grades does not permit large printings nor the amortization of the plate investment over a large volume, the books seem to compare favorably in price with the same types of books published in the United States and those in other countries where studies similar to this one have been made.

In spite of the favorable prices, the cost of books presents many families with a crippling expenditure that saps their finances for more basic needs. For many other families, the expenditure is entirely out of reach.

Although the price of books, too, may not be a realistic picture of the actual average cost per pupil since some titles may serve for two years, it remains a heavy cost when compared with income. One reason, of course, for the high total cost is the number of courses included in the curriculum rather than the price of the titles.

TABLE VII

Text	10th grade E^{o}	11th grade E^{o}
Civic Education	N.A.	5,00
Chemistry	6,00	6,00
English	5,80	6,50
French	4,50	4,50
Guidance	12,00	12,00
History and Geography	8,00	8,00
Manual Arts-Home Economics	3,80	3,80
Mathematics	9,00	9,00
Musical Education	5,00	5,00
Philosophy	N.A.	6,00
Physical Education	N.A.	N.A.
Physics	8,00	8,00
Plastic Arts	8,00	8,00
Religion	N.A.	N.A.
Science	6,40	6,50
Totals	76,50	88,80

Note: Exchange: 5^{o} (Escudos) - $1

What the relationship is of cost of books to dropout rate and to what extent pupils without books are handicapped in their studies are difficult to determine. It would seem reasonable to suppose, however, that if the cost of textbooks could be brought more easily within reach of the students, it might encourage many more to enroll in grade seven as well as remain in school. It also seems reasonable to suppose that pupils without books are more likely to fail and drop out than those with books. For these reasons, the school authorities may wish to consider alternate methods of book distribution:

1. A rental plan - Under this plan the school purchases the books directly from the publisher and rents them to the pupils. The fees from the revolving fund provide the capital for new book purchases. Since local schools depend upon central government for financing, a rental plan must include a large initial output of capital from public, private or donor sources.

   A rental plan, however, does place an additional responsibility on the schools, since the books must be ordered; the rental fee collected and deposited; the books checked in and out and stored when not in use. As a way of testing a rental plan, it might be tried experimentally in selected schools. To launch the experiment and to extend it if it works might require financial aid. Once it is launched, the revolving fund should make it self-financing except for pupils without funds to rent books.

2. A book coupon plan - Under this plan the school provides indigent pupils with book coupons which they exchange with the bookseller; with a donor agency or the Ministry redeeming the coupon.

3. Student loans - As we understand it, the Ministry, in order to encourage more pupils to enroll and remain in school, provides a pupil loan fund to be used for school expenses. Perhaps with financial assistance the fund could be increased in order to provide loans for more pupils. In addition, it might be feasible to provide, with financial assistance, a loan fund for textbooks and other instructional materials only. Although the loans would probably need to be made on a long-term basis, and even if some loans are not repaid, the money set aside for the loans should actually be a revolving fund. Thus the original fund could be used over and over again.

4. Textbooks supplied at no cost. The student only pays if he loses or damages a book.

Although none of these suggestions may turn out to be feasible after thorough study, their exploration could lead to the discovery of a workable plan. Any plan that makes textbooks available to all pupils will encourage more pupils to go beyond the compulsory level of schooling.

If continuity of educational experience for youth breaks down at the point where schools are no longer free, then it seems clear that socio-economic integration aims are being frustrated, as well as manpower aims.

Textbooks for all the pupils should add to the teachers' efficiency and subtract from their frustrations. With books teachers can revise their methodology to include classroom discussion and other methods that require the pupil's active participation.

Because of the growing demand for more textbooks, publishers, too, would have a larger margin to use for the improvement of the readability of textbooks through better design and editing.

Although textbooks for all pupils enrolled in the schools should bring about an improvement in teaching and learning and should increase the number of pupils enrolled in each grade of the secondary schools, particularly in grades 11 and 12 where the dropout rate is the heaviest, they may serve their purpose best by transferring curriculum revision from central committees to the classroom.

Implications of New Secondary Approach

Currently the Ministry of Education is engaged in two major undertakings for the improvement of education. The first of these is a massive program of curriculum reform, and the second is the extension of general education within the near future to includes grades eight and nine. For want of a better term we shall refer to the second reform as the "New Secondary Approach. " (NSA)

Both of these reforms have implications for textbooks. For the curriculum reform, the Ministry is currently developing manuscripts for several courses that will be the instruments of innovation both in method and in content. If these are really well done, the chance of success of current reforms will be greatly enhanced.

Curriculum Reform and Manuscript Development

The two curriculum centers which we visited which are also engaged in manuscript development and the production of other types of instructional materials were these: Programa de Perfeccionamiento del Profesorado Secundario and the Comisión de Material Didáctico.

In the Programa de Perfeccionamiento committees in four different subject matter areas are engaged in curriculum revision and preparation of material for in-service teacher training. Each of the committees is under the direction of a chairman. For each committee there is a Ford Foundation consultant, coordinator, and director of the center. Briefly the Center is engaged in these curriculum activities in these subject matter fields:

English - The chairman of the English Committee is also the co-author of a series of English-language textbooks. These textbooks reflect the best of modern linguistic theory and method. They are published by one of Chile's leading textbook publishers. This series makes it unnecessary for the Center to prepare manuscripts. At present the chairman and the committee are engaged in preparing a set of materials for teachers. These materials are of two types: one type is concerned with method, and the other with lesson plans to illustrate points.

For the improvement of teachers the chairman and the committee also hold seminars for teachers. In March 1967, for example, there were seminars for seventh grade teachers. The committee also had a program planned for the preparation of discs and tapes, but this program is not now in operation.

Mathematics - For the improving of the teaching of mathematics, the chairman and the committee are engaged in revising the secondary school curriculum to include modern topics and the discovery method. They are also preparing teaching materials for the seventh grade.

Science - For the improvement of science teaching, the committee is engaged in revising the curriculum to reflect recent research. According to interview statements, there is a wide gap between the new elementary syllabus and the new secondary school science curriculum.

Social Science - The chairman and the committee are engaged in several revision projects. For grades seven and eight the committee is placing emphasis on methods for these reasons: (1) since the curriculum has not been revised, the best way to improve teaching is to emphasize methods; (2) for the new secondary approach teachers come from both primary and secondary schools. To meet the requirements of the new secondary approach, both need training.

The teacher training program includes seminars and units in which documents are used as the basis of instruction. This method reflects recent trends in social studies instruction. For grades nine through 12 the committee is carrying out a revision within the traditional pattern. The revision consists of teaching the structure of the disciplines and the additions to the curriculum of the new social sciences: anthropology, political science, and sociology. The committee does not intend to write books.

In the Comisión de Material Didáctico Center, the chairman and his staff are engaged in revising prototype science kits, on a trial basis, for experiments in science.

As models for observation and adaptation, the Center should make use of science kits prepared by the Science Materials Center, other curriculum study task groups in the U. S. and by American manufacturers of scientific equipment for schools.

As this brief summary of curriculum revision projects indicates, the improvement of education is high on the list of Chile's national aspirations. As one Chilean educator said to us, "Chile may not have the resources or the geography to be a great power, but Chile can be first in education."

The purpose of the New Educational Approach, then, is to extend the general education of the elementary school to grades seven and eight. The NSA is based on several well defined principles: (1) it is planned to encourage pupils to remain in school through grades beyond the traditional elementary school and to prepare more pupils to continue their education to a logical vocational or academic closure; (2) it provides pupils with three years of additional general education before they are forced to make a vocational choice.

Textbooks will serve the purpose of these changes if they conform to these criteria:

1. The vocabulary should fall within the reading range of the pupils enrolled in each grade.
2. To encourage understanding rather than verbalization, the concepts should be spaced and supported by concrete examples.
3. The method should encourage the pupils to learn through discovery.
4. The textbook should include instructional aids for the teacher and self-instructional aids for the pupils, which may include programming.
5. The books should appeal to the interests and reflect the experiences of all the children living in all regions.
6. The texts should provide for individual differences in learning and in interests.
7. The type face should be designed to encourage reading.
8. The illustrations should communicate ideas visually as well as add interest.
9. The text should be accompanied by such supporting aids as film strips, workbooks, experimental kits for science, discs, and oral records for teaching foreign languages.
10. The text should be accompanied by a teacher's edition. They should provide in-service training on a lesson-by-lesson basis.

Recommendations

To provide textbooks for the revised curriculum and for the new secondary approach, we offer these recommendations for consideration.

1. To assist authors, publishers, and commissions to prepare textbooks which are modern in content and method and which will serve the new programs best, we recommend that publishers add editorial, design, and other publishing

specialists to their staffs. The editorial staff might include a director, editors for the different subjects, copy editors to prepare the manuscripts for the printers and graphic arts specialists. The size of the staff would depend, of course, on the publishing program--it need not be large. Since such a staff might be a strain on the resources of any firm, the Cámara Chilena del Libro may provide a central staff service to its members.

If the publishers, as they have indicated, are eager to have assistance in training editors, an agency or foundation could sponsor a training program open to all publishers who wish to participate.

The training program can take the form of seminars and workshops with emphasis on case studies and demonstrations. On the pragmatic side, an editor-in-training might work with an experienced editor on a project. The training can take place either in Chile or in the United States, although there would be certain problems involved due to shortage of manpower. In addition to editorial training programs, courses in production, design, copy editing, and publishing would be effective.

A recommended agency for conducting the program is Franklin Book Programs.

2. To provide an index to reading levels, we recommend the preparation of a reading formula designed for Spanish similar to the Dale-Chall formula designed for English. The preparation of the formula could be financed by a donor agency and prepared by a Chilean reading specialist. This work should be based upon earlier work by Dr. Seth Spaulding.[1]

3. We recommend the installation of two textbook depositories: one for the Programa de Perfeccionamiento del Profesorado Secundario and one for the publishers to be located at a center selected by the Cámara Chilena del Libro.

   We recommend further that each textbook collection include complete programs of instructional materials that combine print with other media, such as transparencies for overhead projectors, programmed units, contemporary experimental kits, film strips, discs, and tapes. These programs should be exhibited as units and not as separate parts. We also recommend that the basic textbook library be supplemented with programmed books and sets of supplementary books which are available from publishers as a package.

4. A joint conference of leading educators and publishers from Chile, other Latin American countries, and from the United States to explore the modern conception of teaching materials with particular reference to the textbook is desirable. This conference could be co-sponsored by the Cámara Chilena del Libro and the American Textbook Publishers Institute and funded by a donor agency.

   An alternative conference might be held on a regional basis with the educators and publishers from the United States participating as resource specialists.

Technical-Professional Textbooks

Vocational education is organized in three streams: agriculture education, business education, industrial education. We are focusing our efforts on the textbook and teaching materials for training in vocational skills rather than on the courses in general education which are common to all secondary education--general as well as vocational.

Although each of the vocational streams requires specialized education, they share these characteristics:

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[1] Seth Spaulding, "A Spanish Readability Formula," The Modern Language Journal, Vol. XL: No. 8, December 1956.

TABLE VIII--DISTRIBUTION OF ENROLLMENT IN VOCATIONAL SCHOOLS
1965

Specialization	Public	Private	Total
Industrial	18,912	8,441	27,353
Technical (girls)	13,519	8,145	21,664
Commercial	28,203	11,446	39,649
Agriculture	2,297	2,786	5,083
Totals	62,931	30,818	93,749

1. A common program of general education.

2. A limited enrollment compared with general secondary education.

3. A common need for textbooks peculiar to the vocational specialization of the streams.

4. A market that prevents national publishing of low-cost textbooks without a heavy subsidy. This situation, which prevails in all countries, is accentuated in Chile with a population of fewer than 9,000,000 people and a school system that only recently has turned its efforts to vocational education as a means of meeting manpower needs.

Agricultural Education

Chile has an ambitious program for agricultural education underway. With assistance by consultants provided by the Chile-California Project, Chile is reappraising and revising its agricultural education program which is handicapped by the textbook bottleneck.

Any effort to produce textbooks and bulletins for agricultural education will run head-on into the economics of publishing. As can be seen in Table VIII, above, the total enrollment in 1965 in agricultural schools was 5,083. This problem is made even more difficult by geographical differences in Chile which affect agricultural specialization, and by outmoded methods of instruction.

Books and bulletins are used for reference only, and the geography influences the type of agricultural education offered.

Because of the urgency for agricultural education, we make these recommendations:

1. That the Department concerned with agricultural education, using technical assistance, make an inventory of Spanish language textbooks that meet the needs of agricultural education in Chile. There are a number: Shopwork on the Farm; Farm Crops; Livestock; and Soils.

2. That reference sets of these be purchased, with financial assistance, for each of the high schools teaching agriculture.

3. That the Department make an inventory of foreign language textbooks that might be translated and adapted for use throughout Latin America, and that these be translated under AID book programs and distributed with financial assistance to all high schools in Chile teaching vocational agriculture.

4. That the Ministry, with editorial and writing assistance and with financial aid, sponsor the writing, publication and distribution of the bulletins and textbooks required to meet Chile's regional indigenous needs for agricultural education.

Business Education

Spanish language textbooks are available for the business education curriculum. The problem is not one of availability, but of distribution. A study should be undertaken to determine to what extent the cost of textbooks deters young people from enrolling in business education courses and causes them to drop out after they have enrolled.

We recommend regional workshops for in-service training. We suggest the possibility of recruiting consultants from the list of specialists in Chile, and also from publishing companies and Puerto Rico, which is rapidly developing an excellent business education program. Financial aid must be sought to compensate for consultants' fees.

Industrial Education

The manpower need outruns supply and this lack of skilled manpower prevents industrial expansion. Chile needs men to man its machines, to service its household appliances, and to keep its automobiles and trucks rolling.

Books for industrial education are in short supply throughout Latin America. Because of the number of courses, each with a small enrollment, industrial education teachers must use the few available textbooks for reference only.

For textbooks in industrial education to be economically feasible, they must be published for a common market of Spanish language countries. There is no reason for national books because industrial education is culture-free. The machines pupils will learn to tend, the appliances they will learn to service, and the automobiles they will learn to assemble and service are common throughout Latin America. Textbooks and job sheets are applicable to industrial training everywhere. We feel that a country-wide market is too limited and uneconomical; a continental market will be more beneficial. We recommend:

1. An inventory of Spanish language instructional education textbooks currently available that serve Chile's industrial education needs.

2. An inventory of foreign language industrial education textbooks that fulfill course requirements in Spanish speaking countries. We recommend that these be made available for distribution through AID book translation programs.

3. That sets of these be made available with financial assistance for instruction in the vocational secondary school and trade school courses in Chile.

4. That the Ministry, with editorial and writing assistance and with financial aid, sponsor the writing, publication and distribution of the bulletins and textbooks required to meet Chile's regional indigenous needs for agricultural education.

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BOOKS IN HIGHER AND TEACHER EDUCATION

Detailed study by discipline or field concerning the availability of books in higher education would require a much longer visit to Chile than was possible. Since the market, in total, is small and so heavily fragmented, it was considered less fruitful for study purposes than the elementary school market, for example. Comment in this section is drawn from many interviews with university personnel and portions of unpublished and undistributed analyses by previous visitors to Chile.

Although the textbook (and reference) is increasingly important as a tool in higher education in Chile, its systematic use is rare. In isolated instances--the Engineering Faculty of the Catholic University of Santiago, which has a textbook library for use by students upon payment of a semestral fee; University of Concepción, where improvement has been made in text availability to students--progress has been dramatic.

Most comment by Chileans centered on the need for books in technical and professional fields and in sciences. There seemed to be rather general agreement that, at the University level, books in English were useful. Many persons preferred English language books to translations because available translations were considered to be badly done. It is clearly a major problem that many translations are much too literal to have meaning for technical and scientific study.

We are making a division among Teacher Education, Regional University programs and "Higher Education" in order to focus attention on the character and need of the first two. Chile has added dimensions to higher education which are unique in Latin American countries: "middle-level technical training and responsibility for improving teachers for elementary schools." There is considerable activity in the area of extension as well as other types of programs relating the university to its community.

Higher Education

The total program of each of the eight universities of Chile is shown in Appendix A. A quick glance at Figure 7 of the Appendix will make clear the dilemma of books for higher education. Some 30,000 students are scattered through the institutions (some of which have operations in several locations) and through scores of programs and sub-programs. Among the institution, there are many differing program definitions given to the various academic and professional-technical fields of study. These facts force the fragmentation of the book market to the extent that Chile cannot possibly develop textbook programs internally for all fields.

Textbooks are being printed in Chile but there is no private firm concentrating on such production. The presses of the Catholic University of Chile produce university-level textbooks in small numbers of titles and copies. They tend to publish quality books by prestigious authors and their output of technical and professional titles is very small.

The engineering faculties, through the coordinating efforts of the Council of Rectors, are attempting to use the same titles for equivalent courses. We are aware of the difficulties in expansion of that idea but the effort should certainly be made--

particularly in technical and professional fields where the problem is most critical.

Should the idea of a common program of general studies catch on in the university system of Chile (as it is beginning to in some institutions in Costa Rica, Guatemala, Colombia, and Ecuador, for example) textbook markets could be clearly defined and more easily serviced. General studies programs are variously organized in Latin American universities but typically centralize study in social and natural sciences and in the humanities for all students in their first one or two years of university work. In this way, the individual facultades do not need to provide all discipline content. The centralization of laboratories for the sciences is particularly dramatic as a means of providing improved programs and effecting economies. The University of Concepción has moved in this direction with its centros in the three broad liberal arts categories. If all university students were enrolled for two years in such programs, textbook selection techniques, such as those mentioned above in the case of engineering, could be explored. Under such an arrangement, as many as 10, 000 students might be enrolled in comparable courses at one time and the market would be large enough to attract the attention of Chilean publishers.

We do not presume to suggest such an organizational course to all the universities of Chile. We only use this method of dramatizing the fragmentation created by organizational and curricular patterns in regard to textbooks.

Many of the people with whom we talked did not appear particularly concerned about the ability of the student to pay for books. One source mentioned the availability of special student loans for book purchase and other needs.

Commercial and university book stores visited display a reasonably wide assortment of university level books in the humanities and relatively few in most of the social sciences. Staff of Economic Council for Latin America, an arm of the United Nations, decried the lack of good texts in economics, as an example.

Suggestions made by interviewees during our visit included:

1. Careful adaptation of U.S. books in technical fields would be completely acceptable and, if they included a glossary of terms which vary in meaning in different countries, they would be useful all over Latin America.
2. If dollars were available, direct purchase of U.S. books in technical and professional fields, in English, would supply a large percentage of students and professors with useful tools.
3. Collections of American classic literature should be translated into Spanish and distributed all over Latin America through U.S. government shipment channels.

At the university level, the problem of textbooks is very similar to the problem in other Latin American countries: a small total student body scattered through disparate programs of study. We suggest that Chile herself can do little to resolve the difficulty and that U.S. assistance, designed to attack the problem head-on, must be directed toward regional--or, better yet--continental programs.

There are a few suggestions we should like to make which may tend to alleviate the situation.

1. The Textbook Depository Library collection for higher education should be purchased by USAID and placed in the library of the Consejo de Rectores in Santiago, and the central libraries of the University of Chile, Catholic

University of Chile, the University of Santiago, and the University of Concepción. They should be available to other institutions and organizations (such as the Cámara del Libro). The books would serve as standards of text-book quality and add to library service. The staff of the Consejo de Rectores might well select from the collection those books most useful to the students and professors and enter formal request for their adaptation and translation through RTAC or commercial firms.

2. The Consejo de Rectores might consider undertaking a study, perhaps with donor-agency funding, of the precise need for texts by field and degree of sophistication. This study should include concern for the middle-level technical and professional teacher preparation programs in the University Colleges (Centros Universitarios de las Provincias). Such a study might encompass preparation of a bibliography of Spanish language materials (books and periodicals) in technical-professional fields. Where language does not present a problem, the collection mentioned in number "1" above could serve as a guide.

3. The Government of Chile may wish to consider additional subsidies to encourage book importation in critical areas.

4. The United States Government may wish to explore the development of a more highly selective list for its book-subsidy program through USIA, with greater concentration in technical-professional fields.

Middle-Level Technical Programs in University Centers

As has been mentioned briefly, and described in more detail in Appendix A, the University of Chile has organized eight regional or provincial centers. These centers, plus extension operations of the State Technical University, provide study opportunities in a variety of middle-level technical fields. Because of the potential value of such programs, they are worthy of special attention from anyone concerned about textbooks. Because the number of students is small there is no market to attract book development on a private sector basis. Giving "special attention" to the problem, then, requires consideration of development, much as in the case of the elementary school book situation.

Almost without exception, the people with whom we talked in Chile were concerned about the dearth of instructional materials in technical-professional areas. Anyone familiar with Latin America's manpower problems knows the great gap which exists between the university graduates in these fields and the skilled and unskilled worker. Chile is making a gallant effort to fill that gap with skilled technicians in the several specializations of agriculture, business administration, industry, and health and social work. If the effort succeeds, Chile has made a great step forward in general economic development. If the centers are successful, the engineers and doctors of Chile can delegate much of the routine of their professions to others and concentrate on full utilization of their skills.

It is difficult to see, however, how optimum success can be attained in the centers unless the students have the whole range of educational tools available to them and their instructors.

The Chile-California Project staff has taken advantage of the similarities of climate and soil between the state and the country to import agricultural bulletins from California. The extent of the utility of these materials is limited by the language difference but they must certainly be helpful to many. If these pamphlets and bulletins could be translated and adopted in large quantities--sufficient at least to place multiple copies in center libraries--they would be one source of general assistance. The same assumption would apply to periodicals, pamphlets, and bulletins for prospective technicians in dietetics, medical and chemical laboratories, homemaking, electricity, nursing, etc.

It would appear, however, that an adequate supply of instructional materials for these programs will only come after a real commitment on the part of those who are actively engaged in the enterprise. We suggest that the Departamento Coordinador de Centros Universitarios (Coordinating Department of University Centers) create committees of professors in each area of study covered in the Centers. These committees could be commissioned to develop syllabuses for guidance of professors and basic technical manuals for students. The above mentioned imported pamphlets could serve as source materials and Chile-California Project agricultural staff could serve as consultant. The simplest kinds of production techniques could be utilized to make the necessary numbers of copies--even mimeographing. The capacity for producing these materials is available in a number of existing firms and organizations.

We suggest that the Council of Rectors' research staff be asked to work with the Coordinating Department of University Centers. This cooperation would tend to assure the necessary differentiation and/or similarity between the centers' programs and those of the University proper.

USAID staff indicated an interest in concentrating acquisitions from the AID Book Program in the areas and at levels found in the centers. Recent policy changes regarding AID Book Program emphasis (to concentration on translation and publication of university textbooks) may make AID/Chile interest difficult to implement. In Chile, where real effort in middle-level professional-technical is being made, it would be unfortunate if the RTAC operation in Mexico could no longer supply Chile with materials to support that effort.

Teacher Preparation Programs

Teachers for Chile's schools are prepared in the country's universities, University Centers, and in Normal Schools. (More detailed descriptions of programs of preparation for educational personnel may be found in Appendix A). As befits the country which developed the first public school system in Latin America, Chile is making great strides toward higher education level preparation for teachers and in improving teachers in service.

Every effort must be made to assist Chile in its program of improving, both quantitatively and qualitatively, its teachers. We believe that one effective means of up-dating and up-grading programs of preparation is the provision of a flood of textbooks in teaching methods, educational psychology and learning, curriculum planning and development, school administration and supervision, counseling and guidance, and training techniques. If this could be done just for teachers of teachers, results should be quite evident. Massive assistance to the recently inaugurated teacher improvement program (Programa Nacional de Perfeccionamiento de Profesores) alone would upgrade teaching for a large percentage of students in a five-year period.

We talked with many of the important teachers educators of the country. Almost without exception they wanted help in having teacher education titles available, even in the English language. Many of them received a large part of their education in the United States and voiced the concern that they have no way of keeping in touch with innovations and adaptations taking place in the United States.

The Programa Nacional de Perfeccionamiento de Profesores, as we read the publications of the Ministry of Education is concentrating upon teachers for the traditional tract of the secondary schools (Humanístico-Científico). No doubt, given the traditional bias of Latin American education, this is the direction in which most students will wish to go for a long time to come. Our observations in Chile, and our experience in Latin American generally, lead us to the hope that the Programa will soon add the dimension of improvement of teachers in the Technical-Professional secondary track as well.

New programs, notably at the University of Chile's Post Graduate School of Education (Escuela Postgraduada de Educación), require specialized textbooks. During the past year, the school had programs of preparation in the fields of counseling, master teaching, and supervision and during 1967 will begin programs in administration. These fields are relatively new to Latin America and should receive our assistance in any country where they are accepted as legitimate fields of study.

UNESCO representatives reinforced the general emphasis placed upon the need for books for teachers and the teachers of teachers.

One prominent educator remarked, "Our education is so terribly bookish because we have no books." To expect teachers to use books as educational tools for children, when they have no experience with such tools in their own preparation, is to expect the impossible.

We suggest that consideration be given to the following:

1. That USAID provide the Textbook Depository Library collection in Education to the Ministry of Education and to the Departamento Coordinador de Centros Universitarios. The collection would serve as a resource for staff and for committees working on problems in teacher preparation programs.

2. That subscriptions to foreign professional periodicals be provided, through funds from the Ministry of Education and/or donor agencies, to all normal schools and other teacher training institutions. Some of these may be obtained through the Council for Higher Education in the American Republics at no cost for limited periods of time.

3. That a deliberate effort be made by USAID/Chile to bring together the resources of UNESCO, Chilean agencies mentioned above, representatives of the Chile-California Project and the Ford Foundation, USIS staff, and representatives of planning groups from the Ministry of Education to focus upon the need for books in teacher education. So long as many agencies and groups are doing something about the problem independently, there seems little likelihood that the problem shall be under attack.

Other recommendations, specific to other sections of this report, have considerable bearing on teacher education.

LIBRARIES IN CHILE

In general, it is surprising that in Chile; with its high literacy rate, its strong cultural tradition, and its cadre of high calibre professional librarians; libraries are no better than they are. At this time the libraries cannot be thought of as a major book market or as a means of widespread book distribution. This is not to say that they could not become so, and rapidly; but to do so would require imaginative professional leadership, trained personnel, money, and some profound changes within the educational system.

An explanation may be found in a simple historical fact. Throughout the world the countries with the best organized, stocked, and staffed library systems are also the most advanced industrially and economically. The best libraries and national library system in South America are in Brazil. If, or as, Chile raises its level of development it will, perforce, improve and develop its libraries and information centers for they are essential to growth.

The library situation in Chile as of the beginning of 1967 may be summarized as follows:

Public Libraries

There are some 71 public libraries in Chile, five of them directly supported by the Dirección de Bibliotecas, Archivos y Museos, with the Biblioteca Nacional in Santiago at the capstone. The other 66 are known as bibliotecas municipales. In addition nearly 50 elementary and 25 secondary schools offer a very minimal library service to adults.

While the Biblioteca Nacional contains about 750.000 volumes, the other collections range in size from about 80,000, in the Biblioteca Severín in Valparaíso, to only a few hundred. The collections are uniformly poor--not well balanced, weak in science and technology even at the most elementary level, sadly out-of-date, and gravely inadequate in reference and basic information sources.

Housing for these libraries varies. The Severín Library is in a large three-story building built for the purpose some years ago and poorly maintained. The library in Viña del Mar is in three small rooms off a central courtyard. Frequently the town library is housed in the municipal building in a large room on an upper floor.

Home circulation of books is usually permitted, but limited in titles available, and apparently not strongly encouraged. Hours of opening are usually limited to afternoon or early evening. The main use seems to be by students.

The Dirección de Bibliotecas is part of the Dirección de Bibliotecas, Archivos y Museos within the Ministerio de Educación Pública. Article 9 of the Decreto con Fuerzo de Ley no. 5,200 of November 18, 1929, gives the Dirección a broad directive to create, supervise, advise, and support the public libraries of Chile.

The Director of the Biblioteca Nacional is likewise head of the Dirección de Bibliotecas. The present incumbent, a well-known historian-scholar, is apparently uninterested in the development of a strong national library service. As a result there is no effective leadership or program. The situation in the Dirección is understood, and uniformly deplored, by Chile's librarians.

A Committee on a National Plan for Libraries has been appointed by the Minister of Education under the chairmanship of Srta. María Teresa Sánz, President of the Asociación de Bibliotecarios de Chile. A document was prepared by this committee and published in 1966 by the Pan-American Union, providing a basis for a national library plan. Members of the survey team attended one meeting of this strong and able Committee. Several special studies have been undertaken to provide a foundation of basic data. One important recommendation already decided upon which the Committee will make will call for the creation of a separate Dirección de Bibliotecas divorced from archives and museums.

The Biblioteca Nacional, founded in 1813, is housed in an imposing building on the Alameda B. O'Higgins in the heart of the city, not far from the University of Chile Central Library and close by Catholic University. It is arranged into three departments: Chilean-all current books printed in Chile or about Chile; American - works by authors of other North and South American countries; General - works by non-American authors. The research collections, strong in history and Spanish literature, have many rare and valuable works. The collection of colonial documents is notable.

School Libraries - General

The concept of the book-oriented, library-centered school is virtually unknown in Chile; consequently school libraries as dynamic instructional departments of the school do not exist. Some fairly large collections of books (up to 15,000 volumes) have been assembled in a few liceos throughout Chile through the efforts of enterprising administrators, but these are isolated cases.

The projected reforms in the educational system, (mentioned above) if carried out, will undoubtedly result in an increasing need for textbooks. Likewise, as modern teaching methods are adopted, the need for supplementary reading materials will grow. At some stage, hopefully soon, a Department of School Libraries will be set up in the Ministry of Education to encourage and guide the planning; set up standards for school library collection, personnel, and operation; and to develop ways of evaluation and enforcement of standards. This has been recommended by the Asociación de Bibliotecarios de Chile in their comprehensive survey report of November 1964.

Vocational

There are some 36 agricultural, 225 industrial and technical, and 73 commercial schools. A library, or at least a room with a collection of books, is found in all but a few of these institutions. Although there are one or two fairly respectable libraries represented here, for the most part they are very small (less than 1,000 volumes), ill-assorted, dated, and poorly housed.

Normal

It was not possible to visit any of the 17 normal schools. It was reported, however, that the library situation is somewhat better. While in the new schools at Anglo and Villaria the collections of books is still just a few hundred, at La Serena there are about 10,000 volumes, well arranged and kept housed separately in a new building. The library has open shelves and regular hours of opening.

TABLE IX

	Total Students Estimated	No. of Libraries	Total Volumes
Universidad de Chile	15,000	91	800,000
Univ. Católica de Santiago	4,500	22	150,000
Univ. de Concepción	3,500	15	85,000
Univ. Austral	500	13	3,000
Univ. Técnica del Estado	4,000	9	N.A.
Univ. del Norte	500	7	N.A.
Univ. Católica de Valparaíso	2,800	6	20,000
Univ. Técnica Federico Santa María	500	1	40,000

University Libraries .

The curse of Chile's university libraries (Table IX) is the fragmentation into many small parts completely separated--indeed isolated--from each other. Without central administrative control the collections are needlessly duplicative, unbalanced, and without unity. The several technical functions of book ordering, acquisition, cataloging, etc., cannot be centrally carried out.

The University of Chile libraries are an extreme example of costly decentralization. Chancellor Franklin Murphy of UCLA, when considering a cooperative relationship between his institution and the Universtiy of Chile, recognized the gross inadequacies of the system. Paul M. Miles of the UCLA Library Staff was detailed to study the situation in April 1965. He is now in Santiago, since September 1965, attempting to carry out the recommendations for the Library Development Program set forth in his report. Though working against formidable odds he has been able to move a long way in establishing orderly procedures for ordering, processing and, especially, creating a union catalog of the entire library system.

Not the least of the obstacles is the fact that the director of the so-called Central Library, who is not a librarian either by training or experience, has visibly demonstrated his unwillingness to assume any responsibility for cooperative library effort in the University. It should be noted, however, that the professional library staff, on the other hand, are solidly behind the cooperative effort.

All of the major libraries of the University of Chile are most inadequately housed. The Medical Faculty library, for example, has reached the saturation point. Books are piled high on the floor of the basement which, being partially open to the outside, is filthy with dust and dirt and often flooded.

The Central Library, located in the main administrative building downtown and remote from the students, is presently undergoing some remodeling. However, many are suggesting that the Central Library serves no useful purpose other than to provide some study facilities for secondary school students in the immediate area, and are recommending that it be closed and the collection dispersed to other libraries in the system.

The most functional university library visited was at the Catholic University of Chile in Santiago. This library, though also somewhat fragmented, operated effectively under the leadership of one of the ablest of Chile's cadre of trained and dedicated librarians. The director, also president of the Asociación de Bibliotecarios de Chile, will be at the Catholic University Library School in Washington, D.C. during 1967, completing her work toward the Master of Library Science degree.

At Catholic University, with a well selected collection and the strongest set of bibliographical resources in Chile, something approaching modern library service is being given to the students and faculty. The present quarters of the Central Library and the satellite collections, all in the University's large main building, are grossly inadequate but the best possible use is being made of the limited facilities. Planning is well advanced for a new campus at the edge of the city and a centrally located integrated library will be a part of these facilities.

The University of Concepción was not visited as it was closed due to a student strike. A member of the University of Minnesota Library staff, James Kingsley, is at Concepción this year as a consultant, one of a series of such experts. It was reported to the survey team that the library situation at the University of Concepción was steadily improving.

Special and Governmental Libraries

Here are found some of the best, by modern professional standards, libraries in Chile. They are often in modern quarters, and are typically newly developed under strong professional guidance. They serve research and professional personnel trained, for the most part, in the U.S. and Europe where they have learned to depend on good library service. These libraries are relatively well supported, well-staffed, and their up-to-date collections are well used. Outstanding among those visited are the libraries of Commissión Economique pour l'Amérique Latine (United Nations), the Ministry of Agronomy at "La Plantina", and the Bank of Chile.

Impressive also is the Biblioteca del Congreso Nacional (Library of the National Congress). Founded in 1883, it boasts over 400,000 volumes. Particularly valuable are the several special catalogs and indexes which are maintained by the Library.

An important recent development was the creation of the Centro Nacional de Información y Documentación (CENID) within the prestigious Consejo de Rectores Universitarios which administers a national cooperative research program in agriculture, industry, and mining. The Centro was established in 1962 to collect and disseminate information on scientific and technical subjects. CENID also acts as coordinator of all research services offered by the universities and is charged with helping them improve their libraries.

The associate director of CENID is another of Chile's leading professional librarians, a graduate of Rutgers University Library School. She is also secretary of the Comité Chileno de la Federación Internacional de Documentación. This committee comprises the top leadership within the library profession in Chile.

The Library Profession

There are about 250 to 300 trained librarians in Chile, a majority of them women. They are graduates of the Escuela de Biblioteconomía which has been, since 1960, an arm of the Faculty of Philosophy and Education of the University of Chile. The school, founded in 1946 by Edward M. Heiliger, an American sponsored by the Rockfeller Foundation, is housed in a separate building close to the compound occupied by Philosophy and Education. A former residence set in a small garden, it provides cramped but reasonably satisfactory quarters. It also contains a small working collection of professional literature. The central library of the Faculty is but a short walk away.

No member of the Library School faculty gives full time to his job including the director, Apart form that, the staff is a good one, well trained and including several outstanding librarians. The Director holds a PhD degree from the University of Michigan Library School, the only doctorate in library science in South America.

The three-year program, fairly standard for Latin-America, leads to the degree of "bibliotecario" (librarian) often equated with the U. S. bachelor degree in librarianship. Three-quarters of the courses in the first two years are in general education with the professional concentration coming in the third year. Beginning with the 1967 school year, a fourth year program will be available for advanced study and specialization in documentation and information science as well as library science.

There were 195 students enrolled in 1966. The Director affirmed that all of those graduating in 1966 (about 28) who wished employment would be placed. In general, salaries are a little better than those of teachers but, for most, considerably below the other recognized professions. However, a few library posts compare favorably with the better professional positions.

The Needs

The information explosion is affecting libraries throughout the world. It is beginning to have similar effects in Chile. A literate and increasingly better educated citizenry becomes a reading citizenry. A well developed system of libraries, which includes libraries for children, school libraries at all levels, public municipal libraries which serve as community cultural centers; and university and research libraries, provides (1) a steady and predictable market for new books, thus establishing a base for publishing activity and (2) a highly effective agency for disseminating printed materials to all who can profit from their use.

Chile has the beginnings of such a system. Planning for a national program is underway. There are indications that the Ministry of Education understands the possibilities and will find the means to implement the plans.

Summary and Recommendations

In sum, Chilean librarianship could be at the threshold of significant expansion and development given the needed direction and encouragement. To that end the following recommendations, or suggestions, are made. To a certain extent they could be sequential but the several activities could go on simultaneously.

1. That an American Library expert (or experts) be made available to carry out a thorough and comprehensive status-quo study of the libraries of Chile to provide an inventory of the situation and a firm foundation of facts upon which to build. Study will probably require three to six months depending on number of people.

2. That an American consultant, with clerical assistance, be loaned to the Ministry of Education for a two-year period to develop a national plan for library service.

3. That an American school library specialist be provided as consultant to the Ministry of Education to work with a Chilean librarian in developing realistic

standards for school libraries and to set up a national school library service.

4. That two complete demonstration libraries, including building, collection, and director (for five years), be created.

    a. A municipal public library developed as a dynamic community cultural and educational center in a medium -size population center.

    b. A combination school and public library in or near a secondary school.

5. That carefully selected pre-cataloged basic school library collections be provided to schools meeting requirements set up on the basis of the standards mentioned in No. 3 above. Selections should be made from the lists of Chilean or South American publishers, or produced by them for the purpose.

6. Provide a consultant to the University of Chile's Escuela de Biblioteconomía to determine the degree to which the school meets the minimum standards established for Latin-American library schools by the Study Groups which met in Medellín, Colombia in 1963, 1964, and 1965.

7. Make available several two year scholarship grants to mature librarians to pursue advanced study in United States library schools. These should be in specific fields, i.e., school librarianship, information science, public library organization, library work with children, library education.

8. Provide annually two to four scholarships for study toward the Master of Library Science degree in United States Library Schools. This would strengthen the leadership group upon whom the future depends.

9. Organize a workshop and/or conference of Chile's strongest librarians to explain and give impetus to the national plan when it has been evolved.

10. Provide a grant for the strengthening of the library of the Escuela de Biblioteconomía. It is seriously deficient in basic materials in library science.

11. A major contribution to higher education would be to aid the Catholic University in Santiago in building and equipping its new library on the new campus--emphasizing in design and location its painfully won, but now well developed and accepted, central character. It could serve as a dramatic demonstration of the way all higher education must eventually go, just as the new library at the University of Brasilia, and at the new campus of the University of Sao Paulo, will do.

Other recommendations elsewhere in the report directly affecting libraries are concerned with school classroom collections (page 29), and textbook depository libraries (pages 69 and 75).

BOOK ACTIVITY IN CHILE

Private Book Industry

Publishing

For its size and population Chile has a fairly well developed book publishing industry which ranks fourth among the Latin American countries. There are 18 publishers in the Cámara del Libro, the overall book trade organization which includes not only publishers but book importers, book wholesalers and booksellers. (There are, in addition, a number of publishing operations in the religious orders which product textbooks for the Catholic schools). For the most part the private publishing firms are small family enterprises and frequently include book printing facilities and/or a bookstore. They also tend to specialize in particular types of books such as law, fiction and belles lettres, or secondary school textbooks. Because books are, for all practical purposes, not used in the elementary schools, none of these firms specializes in elementary textbooks. The staffs of these enterprises are very small and whatever editorial work is done is usually handled by one of the proprietors or on a part-time basis by a consultant, frequently a university professor. Books are printed in pretty much the same form in which they are brought in by the authors. The normal royalty rate is 10 percent but a good many special arrangements exist. Some authors do not even use publishers but take their works directly to printers and handle the sale themselves.

Edition sizes are very small as might be expected in view of the size of the country and the virtual absence of any export market. A novel which sells very well may be produced in an edition of 4000 or 5000 copies.

Very few books are kept in print as a deliberate policy. A printing is generally designed to sell out within a year and in most cases will never appear again. The printing is usually from type and, even though offset facilities exist, a number of small publisher-printers keep the standing type if they anticipate the need for a reprinting. Even material prepared specifically for the secondary school market may be out of print for extensive periods of time because there is no requirement that any book approved for school use by the Ministry of Education be maintained in stock.

The number of titles published annually has not shown any consistent growth over the past decade or so. In 1953 there were 1191 titles published of which 404 were listed as books and 787 as pamphlets. In 1962 the number was 1040, and in 1964, 1577 (Table X). All of these figures are supposed to be based on the UNESCO standards of that year which, among other things, makes a differentiation between pamphlets of 48 pages or less, or books of 49 pages or more not including covers.

Book Printing

Most books produced in Chile are printed on rather old-fashioned letter press equipment and binding is principally by hand. Printing on this equipment is very expensive, reportedly 30 to 40 percent higher than in Argentina, but the differentiation in cost is in part due also to the much higher Chilean paper prices. There are about 12 to 15 printing establishments that do mostly book work. Some six firms have offset equipment, including two very large establishments which have modern multicolor web offset presses used for magazines and comic book printing. These two firms have a good deal of unused capacity which could be used for book work, especially paperbound elementary and secondary textbooks.

Paper

Practically all of the books produced in Chile use local paper. There are two paper mills and the country is a net exporter of paper. The quality of the local paper available for books is not very high, and the price is held well above the world market prices by the inability to get import licenses for paper for books. A reduction of 30 percent in the published price is made for two grades of paper when used in textbooks.

Prices

Locally produced Chilean books are high-priced in terms of the income level of the population. This results from a combination of factors, principally short editions and high printing and paper prices. Imported books are even more expensive, not because of tariffs, which do not exist, but the difficulties and expense of importation from long distances, the red tape of import and foreign exchange licenses, the high cost of short term credit (about two percent a month), and the continuing inflation which has been a minimum of 25 percent annually for some years. On the other hand, if elementary textbooks were to be produced on a mass basis by the two large offset plants and imported paper could be used, prices would be competitive with books produced anywhere.

Bookselling

There are very large number of bookstores in Santiago for a city of two million, and this is true to a lesser extent of a few other large cities. The Cámara del Libro estimates that there are some 200 book outlets in Santiago and 400 outlets for stationery and records which also handle books, and the really professional bookstores are estimated to number only about 100.

The standard discount on books from publishers is 36 to 40 percent for trade or general books, and 25 percent for textbooks. Payment is expected in 90 to 180 days and credit losses seem to be small. Shipment is usually by truck although the mails are used also to smaller places and the postal rates on books are not excessive. As in most countries other than the United States, the vast bulk of distribution is through bookstores--including elementary and secondary texts. There are no book clubs and direct mail selling is rare. General encyclopedias in Spanish, none of which are published in Chile, are sold door to door in the usual manner.

Book Imports

Since imports form such a large proportion of the books currently used in Chile the business of imports is well organized. Some nine member firms of the Cámara del Libro are importers. These firms tend to specialize in areas such as English language books, French language books, scientific and technical books, etc. In addition some foreign publishing firms, principally from Argentina and Mexico, have local Chilean branches do their own importing, and in some cases also operate their own bookstores. Although the foreign exchange licensing procedure is cumbersome and time consuming, the present situation is very much better than it has been in the last few years. Then it was necessary for the importer to put up an advance deposit at the time applied for a foreign exchange license at the central bank. This meant tying up capital at very high rates of interest for periods which sometimes stretched from six months to a year. Now foreign exchange licenses from the central bank are usually available in a week or two and it is generally possible to get a shipment of books from Mexico or the United States in about three months from the time of applying for the license. Actual shipment from Mexico or New York takes only about a month. In view of the size of the country--only 8 1/2 million people--and the fact that one of the world languages is used, Chile will probably remain on balance a heavy book importing country. Scientific, technical and professional books, higher education textbooks, and many secondary education textbooks can be produced more effectively and cheaper abroad. The same is true of a wide variety of books for popular consumption and books which would be used in public and school libraries if these should be developed. However, even at the present time where sales in Chile are 10,000 copies or more, it may become more common to reprint foreign books by offset in Chile rather than to continue importation. One foreign firm is doing this on a fairly large scale now; it has reprinted by offset over 70 of its titles in the last two or three years because the demand was high enough to make this a more economical procedure.

Book Production in the Public Sector

Several of the Ministers of the Government of Chile deal, to one extent or another in the production of materials for the reading market. In most cases, equipment is minimal and obsolescent. The university presses, with perhaps slightly better equipment, produce university textbooks and a limited number of periodicals.

The Ministry of Education is reported to operate, through various programs, a few one-color offset presses, some linotype and letter-press equipment, and photography units. Binding equipment is generally very limited. The Ministry administers a school of Graphic Arts which prepares students for work in the industry generally. The Department of Culture and Publication, also an arm of the Ministry of Education, prints several government publications.

The governmental departments of Railroads and Health and Welfare also print their own publications.

Book Activities of Foreign Agencies

USIS Book Program

The U.S. Information Service has two activities which result in bringing books to Chile. The first, the presentation program, assists libraries and often provides multiple copies of textbooks to university libraries. During the 12-month period preceding our visit, 100,000 volumes were brought to Chile under this program. Fifty percent of these were hard-cover quality books. Of these 50,000 copies, 75 percent were presented to universities; 10 percent to selected secondary schools. Perhaps five to 10 percent go to municipal, government, and community libraries.

Under the USIS subsidy book program 125,000 copies of books found their way to Chile in 1965. This is a commercial program, with books purchased by book outlets. Country USIS personnel assist in advertising. The selection of titles is relatively unsystematic although recent importations have had some emphasis on economics. Each country post is privileged to select certain titles for translation and printing. Chile has selected three labor economics titles which will be printed in a 3,000 run.

US/AID Book Program

During 1966, the AID book program brought approximately 200,000 copies to Chile at a cost of $100,000. About 20,000 of them were hard-cover books which were distributed as gifts to universities. About 60 percent of the remaining books (soft-cover) were presented to universities and vocational schools and 40 percent to industrial and community development operations in Chile.

Through the Central Book Fund, a program designed to support AID action programs, the textbook rental library at the school of Engineering in the Catholic University of Chile was developed. Opinion on the workability of this program was rather diverse--ranging from "not worth the trouble and expense" to "let's create more of these rental libraries." Of course, our stay was too short to permit observation of the operation of this rental library and so we do not know how effective it is. The idea seems feasible but it may take some time to catch on. The Latin American student is an admirer of books but tends to want to own the books he uses. He may resist the rental concept on cultural grounds.

The Ford Foundation, in its work with the Ministry of Education, has helped develop elementary school books in reading and is expanding toward arithmetic materials.

The Chile-California Project has attempted to bring in U.S. pamphlets and bulletins for use in agricultural education program--both formal and informal.

TABLE X--CHILEAN PRODUCTION OF BOOK AND PAMPHLET TITLES IN 1964 AS REPORTED TO UNESCO

			First Editions Only	
Subject Groups	Books only	Books and Pamphlets	Books only	Books and Pamphlets
Generalities	19	25	19	25
Philosophy, psychology	20	25	18	21
Religion, theology	45	75	28	56
Sociology, statistics	30	49	29	48
Political Science, political economy	76	135	67	126
Law, public administration, welfare, social relief, insurance	246	405	242	401
Military art and science	2	3	2	3
Education	68	127	44	102
Trade, communications transport	13	23	12	22
Ethnography, manners and customs, folklore	3	8	2	7
Linguistics, philology	23	31	12	19
Mathematics	6	7	2	3
Natural sciences	10	13	8	11
Medical sciences, public health	23	75	20	71
Technology, industries, trades and crafts	22	36	14	28
Agriculture, forestry, stock-breeding, hunting, fishing	9	25	7	23
Domestic science	7	9	5	7
Commercial and business management techniques communications, transport	6	9	5	8
Town planning, architecture plastic arts, minor arts photography, music, film, cinema, theatre, radio, television	19	111	15	107
Entertainment, pastime, games, sports	2	27	2	27
Literature: History of Literature and literary criticism textbooks	15	44	15	44
Literature: Literary texts - children's books	172	214	98	140
Geography, travel	15	26	10	19
History, biography	46	75	40	69
TOTAL	897	1,577	716	1,387
Textbooks	204	249	111	152
Children's Books		23		23

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a. UNESCO Statistical Yearbook, 1965, Tables 31 and 32.

TABLE XI--CHILEAN PRODUCTION OF BOOKS AND PAMPHLETS IN 1964 AS REPORTED TO UNESCO[a]

(in thousands of copies)

			First Editions Only	
Subject Groups	Books only	Books and Pamphlets	Books only	Books and Pamphlets
Generalities	128	172	128	172
Philosophy, psychology	140	188	124	148
Religion, theology	360	564	320	508
Sociology, statistics	232	388	216	372
Political science, political economy	566	998	502	934
Law, public administration, welfare, social relief, insurance	1,061	2,667	1,585	2,651
Military art and science	16	24	16	24
Education	496	944	384	824
Trade, Communications, transport	112	200	94	182
Ethnography, manners and customs, folklore	20	60	12	52
Linguistics, philology	146	194	72	116
Mathematics	44	48	16	20
Natural sciences	68	88	52	72
Medical science, public health	160	480	136	368
Technology, industries, trades and crafts	164	268	108	212
Agriculture, forestry, stock-breeding, hunting, fishing	65	169	40	144
Domestic science	52	64	36	48
Commercial and business management techniques, communications, transport	44	68	36	60
Town planning, architecture, plastic arts, minor arts, photography, music, film, cinema, theatre, radio, television	147	714	124	691
Entertainment, pastimes, games, sports	16	214	16	214
Literature: History of literature and literary criticism - school textbooks	112	328	112	328
Literature: Literary text - children's books	1,276	1,520	696	940
Geography, travel	108	180	80	144
History, biography	332	540	200	408
TOTAL	5,865	11,080	5,105	9,632
School textbooks	1,632	1,992	888	1,216
Children's books	-	184	-	184

a. UNESCO Statistical Yearbook, 1965, Table 33

TABLE XII--BOOK PUBLISHING STATISTICS OF SELECTED LATIN AMERICAN COUNTRIES AS REPORTED TO UNESCO FOR 1964[a]

Country	Population (in millions)	Book and Pamphlet Titles	Thousands of copies Books and Pamphlets	Thousands of copies Books and Pamphlets--School Textbooks	Thousands of copies Books and Pamphlets--Children's Books	Per capita Consumption of Printing and Writing Paper (Kilograms)	Percentage of Adult Literacy (1960)	Daily Newspaper Circulation (per thousand population)
Argentina	22,022	3,319	19,305[1]	n. a.	n.a.	4.0	90.3%	146 (1963)
Brazil	78,809	5,133 (1963)	79,832	n. a.	549	2.0	57.4%	72
Chile	8,492	1,577	11,080	1,992	184	3.4 (1963)	82.4%	118
Mexico	39,643	4,661	n. a.	n.a.	n.a.	2.9	60.7%	112
Peru	11,357	946	n.a.	n.a.	n.a.	0.9	47.6% (1961)	n.a.

1. The Argentine production seems to fluctuate greatly. In 1963 title production was 18 million copies and in 1962 over 29 million.

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a. UNESCO Statistical Yearbook, 1965, Tables 29, 31, and 32. (García, Desarrollo de la Industria Editorial Argentina, Buenos Aires, 1965).

TABLE XIII--CHILEAN BOOK AND PAMPHLET PRODUCTION IN RELATION TO POPULATION [a]
1953--1964

Year	Population (thousands)	Books and Pamphlets Titles published	Translations published
1953	6,437	1,191	
1954	6,597	1,546	
1955	6,761	1,886	
1956	6,944	1,498	
1957	7,121	1,533	
1959	7,465	1,227	45
1960	7,689	1,518	42
1961	7,858	1,389	23
1962	8,029	1,040	29
1964	8,492	1,577	15

[a] UNESCO Statistical Yearbooks, 1963, 1964, 1965. Books in the Americas, Pan American Union, Washington, D.C., 1960

APPENDIX A

Education in Chile

The hundreds of thousands of children and youth who are in the formal school system of Chile represent both the greatest need and the greatest potential for book development. This section of the report describes that school system insofar as a description is relevant to the purposes of the study.

General Backgound

Chile has long been proud of its educational system, and justly so. It has produced one of the most literate populations in Latin America--the literacy rate being reported at 80 percent--and was the pioneer in South America in the creation of a national system of public education.

State sponsorship of education began during the colonial period with the establishment of the Real Universidad de San Felipe in 1738. The expulsion of the Jesuits in 1767 forced municipalities to concern themselves with non-religious institutions--a concern which gave support to state schools soon after independence. In 1779, the Academia de San Luis a secondary level school, was founded by Don Manuel de Salas, whose descendants are among those currently influential in Chilean education.

The Constitution of 1833 established the concept of states responsibility for education and led to several positive acts, including the founding of the University of Chile in 1842. The Organic Law of 1860 provided much needed stimulation in the development of education. It made elementary education free and provided for secondary schools in principal population centers. Too, it provided that grants from the public treasury be dedicated to education.

The law of 1879, in effect until 1927, gave the leadership in higher and secondary education to the University of Chile and strengthened the liceos, or secondary schools. By 1900, Chilean education had been so influenced by German educators that it bore little relation to Latin philosophy and objectives. The elementary schools were ineffective and the secondary schools were designed to create an elite class. The Law of 1920 gave great impetus for change, primarily because it made four years of education compulsory and liberalized admission to the secondary school. This law, together with the reform of 1927, gave Chile the pattern of educational organization present today.

The 1930's, 40's, and 50's saw rapid enrollment increases at all levels. More girls attended schools. However, the program continued to be heavily weighted toward academic study and the drop-out rate was extremely high. Financial support to both public and private schools and universities increased sharply, although real increases were not sufficient to give adequate support to qualitative improvement, due to inflation.

Recent Legislation

On December 7, 1965, a series of decrees were issued which are certain to have an impact upon the educational system in Chile.

Decree No. 27,952 provides for a redistribution of elementary and secondary school grades, some changes in pre-primary education, and a two-track secondary school program. Decree No. 27,953 adds a seventh year to the old six-year elementary sequence and provides for subsequent expansion to eight and nine years. Decree No. 27,954 provides for automatic promotion in grades one and two, given reasonable attendance records and minimal levels of achievement in the Spanish language and mathematics.[1] Further reference will be made to these decrees in subsequent sections of the report.

The System of Education

The Ministry of Education is responsible for the management of the educational enterprise in Chile. Thus education, as in nearly all Latin American nations, is completely centralized in the national government. It provides all funds for the support of staff, program, and facilities for the public schools. The Ministry prescribes the curricula, exercises control of personnel training, certification, appointment, assignment, and dismissal. The private schools of Chile at elementary and secondary levels operate on Ministry standards.

Private schools are subsidized by public funds. They receive an amount in per-student subsidy of up to 50 percent of the per-student cost of education in public schools.

Figure 1 shows an extremely simplified organization chart of the Ministry of Education. Figure 2 shows the types of schools and their organization prior to the current reform movement. To a certain extent, the pattern will exist for some time to come.

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[1] "La Reforma Educacional Chilena y sus Proyecciones," op. cit. pp.3-11.

FIGURE 1.

ORGANIZATION OF THE MINISTRY
OF EDUCATION IN CHILE

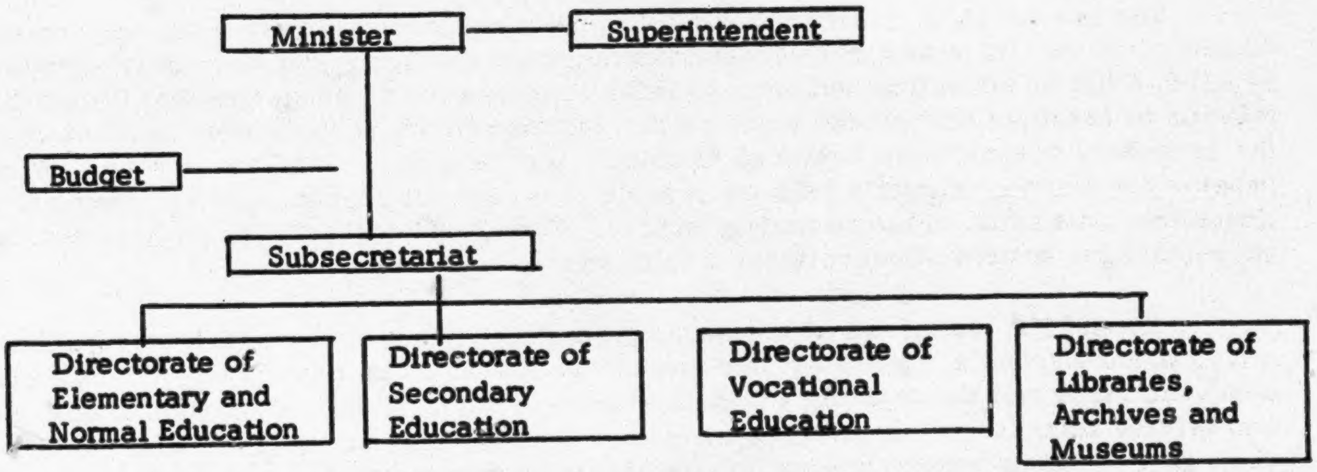
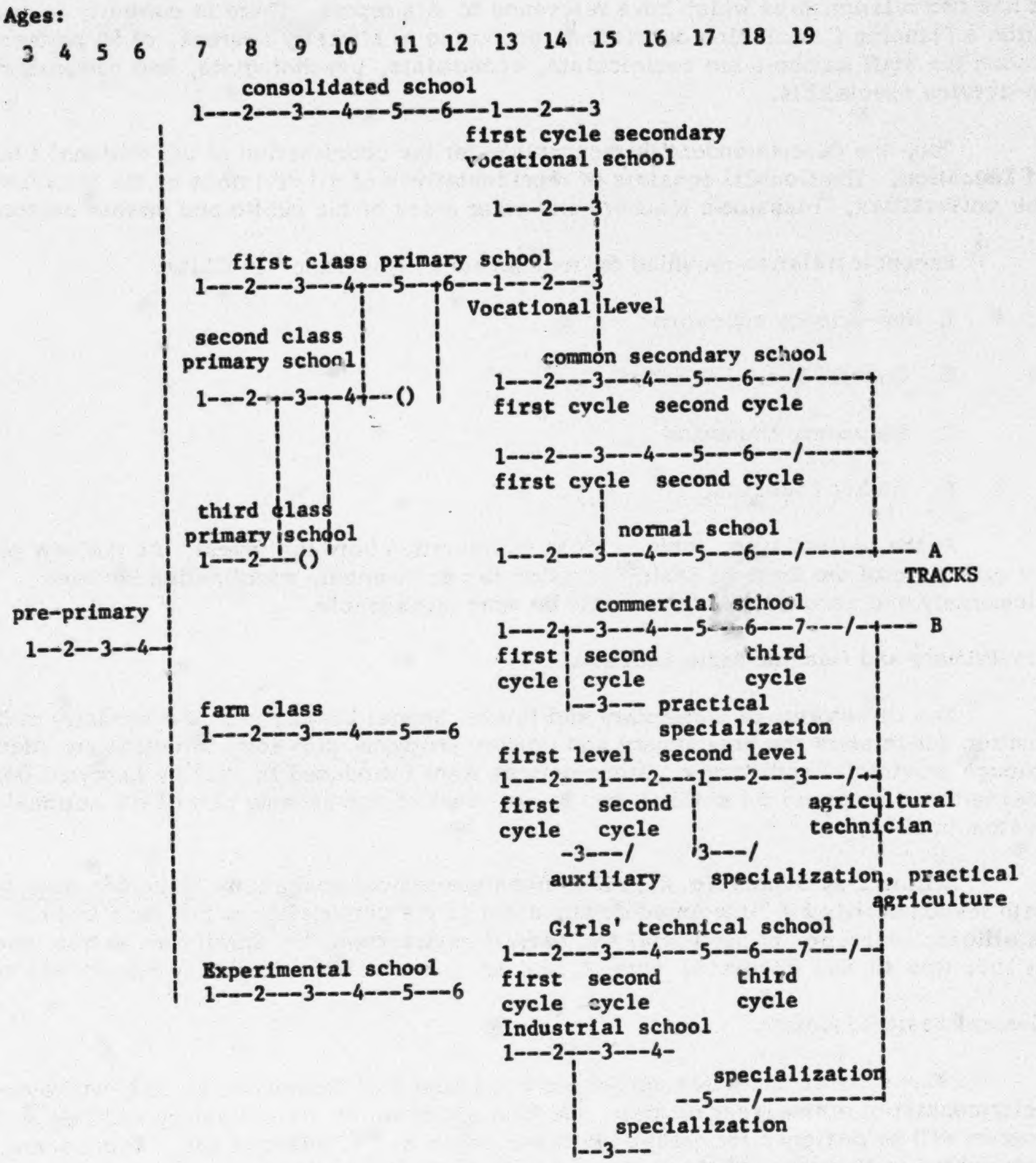

Minister
Superintendent
Budget
Subsecretariat
Directorate of Elementary and Normal Education
Directorate of Secondary Education
Directorate of Vocational Education
Directorate of Libraries, Archives and Museums

FIGURE 2. -- TYPES OF PRIMARY AND SECONDARY SCHOOLS IN CHILE[a]


Ages:
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
consolidated school
first cycle secondary vocational school
first class primary school
Vocational Level
second class primary school
common secondary school
first cycle second cycle
first cycle second cycle
third class primary school
normal school
A
TRACKS
pre-primary
commercial school
B
first cycle
second cycle
third cycle
practical specialization
farm class
first level
second level
first cycle
second cycle
agricultural technician
auxiliary
specialization, practical agriculture
Girls' technical school
Experimental school
first cycle
second cycle
third cycle
Industrial school
specialization
specialization

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[a] UNESCO, World Survey of Education, Vol. IV, Higher Education, 1964.

The Superintendency of Education, although provided for in both the 1833 and 1925 Constitutions, did not become a reality until 1953. In general, it is charged with the general overseeing of education. The role of this organism is still not clearly stated but it has two relationships which have relevance to this report. There is currently in operation a Planning Commission consisting, according to Ministry sources, of 50 professionals. Among the staff members are sociologists, economists, psychologists, and curriculum and in-service specialists.

Too, the Superintendent is responsible for the coordination of the National Council of Education. The Council consists of representatives of all divisions of the Ministry, the universities, classroom teachers and other areas of the public and private sectors.

Recent legislation provided for four levels of education [1] in Chile:

1. Pre-primary education
2. General Basic Education
3. Secondary Education
4. Higher Education

At the present time, there is little coordination between levels. As the new plan for extension of the General Basic Education is implemented, coordination between elementary and secondary levels should be more manageable.

Pre-Primary and General Basic Education

The Directorate of Elementary and Normal School Education in the Ministry of Education administers the pre-primary and primary programs with some direction provided through provinicial authorities. Kindergartens were introduced in 1911 by imported German teachers and programs for children two to six years of age became part of the national system in 1948. [1]

Article 2 of Decree No. 27,952 charges pre-school education (educación parvularia) with responsibility for "integrated development of the personality of the child and his intelligent adaptation to his social and natural environment." [2] Enrollment at this level in 1965 was 48,663 (Figure 5) with 5,133 of the children enrolled in private schools.

General Basic Education

General Basic Education as defined by Article 3 of Decree No. 27,952, will eventually consist of a nine-year program, the first six of which are obligatory and free. [3] The program will be designed for children between seven and 15 years of age. This decree, promulgated in December 1965, tends to reinforce previous attendance requirements. The first cycle, of four years duration, will be devoted to basic knowledge and skills. The second cycle of four years (to be extended to five years when the nine year schedule is realized) will add emphasis in vocational orientation.

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[1] "La Reforma Educacional Chilena y sus Proyecciones," op. cit.

[2] Clark C. Gill, Education and Social Change in Chile, (U.S. Dept. of Health Education and Welfare, Office of Education, 1966 OE Bulletin 1411, No. 7 p. 40.

[3] "La Reforma Educacional Chilena y sus Proyecciones," op. cit. p. 2.

The current developments in elementary education have come in large part from the experimental Plan de Integración Educacional de Arica. This program was initiated in 1961 under the direction of the Superintendency of public education.[1] Although some adjustments are being made as the experimental plan is put into general practice, the spirit of the plan remains. At the moment, it is not absolutely clear what the final structure will be but it is certain to show concern for: a delayed vocational choice, greater coordination between grades and levels, more guidance services, and greater adaptation of curricula and activities to local and regional realities.

The new program will also attack one of the tragic realities in Latin American education: the excessive and early loss of students to the schools. Decree No. 27,954 provides for automatic promotion from grades one and two . This, together with planned guidance services and differentiated curricula, should begin to resolve the costly and defeating repetition of grades by so many children.

There has been considerable improvement in the percentage of the total school-age population actually enrolled in school (Figure 3).

It is evident from another source,[2] however, that any age group is likely to distribute widely through the system. For example: eight-year-olds are found in grades one through five; 10-year-olds in grades one through seven; and 12-year-olds in grades one through nine. Particularly in the case of 12-year-olds, the percentages found in grades two through seven are substantial, indicating much repetition of grades. Further evidence is found in Ministry reports which are summarized in Figure 4.

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[1] Gill, op. cit., p. 57.
[2] "La Reforma Educacional Chilena y sus Proyecciones," op. cit., p. 45.

FIGURE 3[a]

	1954	1965
Age 6 Percentage in school	11.12	20.62
Age 7 Percentage in school	61.56	95.67
Age 8 Percentage in school	76.02	94.88
Age 9 Percentage in school	78.39	93.97
Age 10 Percentage in school	80.55	97.21
Age 11 Percentage in school	74.23	91.54
Age 12 Percentage in school	71.76	84.34

Note: Figures do not include pre-school education or vocational programs.

[a] "La Reforma Educacional Chilena y sus Proyecciones," op. cit., p. 41.

FIGURE 4

PERCENTAGE OF ACCELERATED AND REPEATERS BY GRADE IN ELEMENTARY AND SECONDARY SCHOOLS (1965) [a]

Age	7	8	9	10	11	12	13	14	15	16	17	18
Grade	1	2	3	4	5	6	7	8	9	10	11	12
Accelerated	11.0	15.8	15.5	17.3	17.3	21.9	26.4	31.4	28.5	28.7	27.1	33.3
Normal	40.6	28.4	24.5	22.9	23.9	26.0	36.6	28.3	27.0	25.3	26.7	27.2
Repeaters - 1 year	21.1	20.3	21.1	19.3	22.3	22.4	20.5	22.3	22.0	23.8	24.4	21.1
Repeaters - 2 years or more	27.3	35.5	38.9	40.5	36.5	29.7	16.5	18.0	22.5	22.2	21,8	18.4

[a] "La Reforma Educacional Chilena y sus Proyecciones," op. cit., p. 39.

The curriculum of the elementary schools is currently under study, as reported in the body of this report. Table I shows the general structure of the program which is expected to be fully implemented by 1968 or 1969.

The student who completes the prescribed program for General Basic Education will receive a licencia or diploma which will indicate certain vocational interests and aptitudes and will provide access to further education.

There are a variety of types and organization patterns found in the pre-primary and primary system. Some are annexed to secondary and technical schools, kindergartens, adult schools, etc. In the case of those annexed to secondary schools there is some confusion about management jurisdiction. Primary schools are of the following type: four-year incomplete, six-year complete, experimental and boarding schools, rural, and those attached to secondary schools.

Although a great deal of effort is being made to improve the General Basic Educational Program for the children of Chile, there are many problems remaining. The curriculum remains largely uniform throughout the country and heavily weighted toward intellectualism and verbalism. For the most part, the schools are crowded and often on double-shift. Textbooks, where they exist, are encyclopedic and unimaginative.

Although there are many agencies--public, private, and foreign--involved witn the schools, there is little coordination and much of the potential is lost. One organization, of recent origin, which will provide an aspect of coordination is the Federation for Research and Development of Education (Federación de Investigación y Desarrollo de Educación). This is an association of private schools in Chile and now permits an accurate census of the private schools, most of which are church-connected.

Enrollment figures for pre-primary and primary levels are found in Figure 5. Figures predate recent grade category changes which are a part of the new classification "General Basic Education." For this reason, "Primary Education" in the Table refers to grades one through six. Figure 6 shows enrollment in public and private schools by grade level and projections to 1970 and 1980.

FIGURE 5--DISTRIBUTION OF ENROLLMENTS BY LEVEL IN THE REGULAR SCHOOLS OF CHILE MAY, 1965 [a]

LEVEL		PUBLIC		PRIVATE		TOTAL
Pre-Primary		43,530		5,133		48,663
Primary		1,140,243		420,072		1,560,315
Secondary		204,341		114,609		318,950
TOTAL		1, 385,114		539,814		1,927,928
1. General Secondary		134,514		83,791		218,305
2. Professional		62,931		30,818		93,749
-Industrial	18,912		8,441		27,353	
-Girls'Technical	13,519		8,145		21,664	
-Commercial	28,203		11,446		39,649	
-Agriculture	2,297		2,786		5,083	
3. Normal		6,896		no information		6,896

[a] Unpublished mimeographed statistical collection prepared in the Superintendencia de Educación, Ministerio de Educación Pública.

FIGURE 6--ESTIMATED DISTRIBUTION OF STUDENTS BY GRADE LEVEL, PUBLIC AND PRIVATE

Grade	Enrollments, 1954[a]	1965 (est.)[a]	1970[b]	1980[b]
Pre-Primary	18,200	48,600		
1	191,300	445,400	297,459	372,547
2	179,800	295,100	278,125	354,284
3	154,300	258,000	267,872	352,479
4	106,900	220,900	279,642	337,660
5	75,500	172,300	299,504	318,063
6	55,400	137,000	199,334	294,420
7	46,500	90,200	149,462	280,554
8	33,400	69,100	110,042	253,826
9	23,800	53,400	87,832	226,317
10	18,100	42,800	76,949	205,938
11	12,900	31,000	59,441	175,562
12	9,800	19,500	40,471	151,627
	925,900	1,883,300	2,146,133	3,323,271

[a] "La Reforma Educacional Chilena y sus Proyecciones," op. cit. pp. 46-47

[b] Estimaciones de Matrícula por Curso y Edades para el Sistema Regular de Educación. Años 1965-1980, op. cit., pp. 9.

Secondary Schools

As has been stated, the "classification" of secondary education is undergoing change in Chile. Where once the first six years were clearly "elementary" and the last six were clearly "secondary" (as generally defined in Latin America) we find the General Basic Education category operative through the eighth year (eventually the ninth). Assuming maximum implementation of current plans, we shall define secondary education as it is defined in Article 4 of Decree No. 27,952: from completion of the program of General Basic Education through the 12th year.

The program for secondary education will be divided into two broad tracks: Humanistic-Scientific, and Technical-Professional.

The Humanistic-Scientific track will be, in essence, an intensification of general and classical education. It will follow, generally, the traditional liceo program of university preparation, but plans call for greater flexibility and more elective courses.

The Technical-Professional track, planned for in reform legislation cited above, will provide for vocational specialization but will not exclude its graduates from entering the universities of the country.

Upon completion of the secondary program, regardless of the choice of track, the student will receive a diploma (licencia).

The classification of traditionally "secondary" grades seven, eight, and nine, to General Basic Education makes it difficult to predict exactly what the curriculum will be. The Curriculum will evolve from the beginning already a part of the program for the seventh year.

Ministry figures (Figure 5) for 1965 show enrollments in secondary education private and public as 318,950. Of these students 218,305 were enrolled in "general secondary schools", 93,749 in "professional secondary" programs, and 6,896 in public normal schools. These figures include enrollments in the years seven to 12 which were the coverage of the "secondary" program under the old organization. Grades 10, 11, and 12 had a total enrollment of 93,300 in 1965.

Although recent reform movements should eventually result in substantial changes in the focus of secondary education, many of the real problems will be in evidence for years to come. It is not easy to make the attitude changes necessary to divert large numbers of students from the traditional programs of study to those more in tune with the reality of the socio-economic situation in Chile today.

The secondary student is exposed to a broad academic program. He is in class 30 hours per week or more. In the absence of a variety of instructional materials, library facilities, and laboratories, he is subjected to formal presentations by ill-prepared teachers who are heavily overloaded. Gill[1] reports that, over the years, barely one-half of the graduates of the liceos pass entrance examinations to universities. Thus, it is apparent that the secondary schools of Chile do not do well that which they most earnestly attempt--the preparation of students for the university.

The problem is even more critical, perhaps, when viewed from the aspect of human resource need in Chile. In 1960, there were 652,000 people active in the agricultural sector of the economy (29,3 percent of the total labor market).[2] In 1965, there were 5,083 students enrolled in agricultural programs, scarcely one and a half percent of secondary enrollment.

Heavy drop-out rates continue at the secondary level. One report of the Ministry of Education points out that of every 100 who enter the secondary schools, only 28 arrive at the final year.[3]

Vocational Secondary Education

Secondary vocational and technical schools are under the jurisdiction of the Directorate General of Agricultural, Commercial and Technical Education. Aside from these categories listed in Figure 5, there are apprentice programs in vocational schools and in conjunction with certain primary schools and normal schools. In all, 1965 enrollments in these programs amounted to 29,910 in public institutions and 1,685 in private schools.[4]

Education for Adults

Through the primary school system, civil defense operations, correctional institutions and special adult schools, 27,554 adults were enrolled in courses (primarily for literacy training) in 1965. An additional 1,310 were enrolled in facilities provided by private schools.

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[1] Clark C. Gill, op. cit., p. 59.

[2] "Recursos Humanos," (Superintendencia de la Educación, Oficina de Planificación, Santiago, 1966, unpublished preliminary draft).

[3] "Sinopsis del Programa de Educación, 1965-1970," op. cit., p. 42.

[4] Unpublished mimeographed statistical document prepared in the Superintendencia de Educación--May 1965 data.

Some practical training was provided to 12,935 adults in various shop courses. Of this figure, 9,704 were women. An additional 142 adults were in regular vocational programs. In all, a total of 41,941 adults were receiving some kind of literacy or practical training in 1965.[1]

Higher and Teacher Education

There are eight universities in Chile which are recognized and supported by the state. The public support of higher education is the only element of dependence found in either public or private universities. They are autonomous entities. As is typical of Latin American universities, the Chilean institution of higher education is a collection of virtually independent *facultades*, schools, and institutes.

The University, with estimated enrollments are:

Universidad de Chile	15,000
Universidad Católica de Chile	4,500
Universidad de Concepción	3,500
Universidad Católica de Valparaíso	2,800
Universidad Técnica Federica Santa María	500
Universidad Técnica del Estado	4,000
Universidad Austral de Chile	500
Universidad del Norte	500

They range in complexity from the University of Chile, with 14 Facultades in Santiago and 11 other locations, to the new University of the North, with three *Facultades* and a technical institute.[2]

Enrollment in Chilean Universities in 1965 was 33,516.[3]

Only two of these institutions are public: The University of Chile and the State Technical University. Besides these eight universities, which enjoy full recognition by the state, are two others which offer education beyond the secondary level. They are: *Escuela Superior de Agricultura* and the *Escuela Normal José Abelardo Núñez.*

The two state universities are entirely financed by the national government through the Ministry of Education. The private institutions receive subsidies ranging up to 60 percent. By law .5 percent of national revenue is earmarked for university buildings and for research related to economic development.

Although specific statistics are missing from documents on hand, interview results and general statements in print indicate that there is heavy drop-out of students at the university level, particularly during the first two years of attendance. Figure 7 shows various courses of study offered by the university and their location.

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[1] Superintendencia de Educación, *op. cit.*

[2] "Guia Informativa de las Universidades Chilenas," (Consejo de Rectores, Chile, 1965).

[3] UNESCO Educational Developments in Latin America, 1956-1965 (report of conference).

FIGURE 7--GENERAL INFORMATION IN HIGHER EDUCATION[a]

Abbreviations: (institutions)

UofCh	University of Chile
CUofCh	Catholic University of Chile
CU	Conception University
CUofV	Catholic University of Valparaíso
FSMTU	Federico Santa María Technical University
STU	State Technical University
SUofCh	Southern University of Chile
NU	Northern University

(Cities)

Talca, Temuco, La Serena
Arica, Iquique, Copiapo
Chillán, Osorno, Villar

Antofagasta	(Antof)
Santiago	(Stgo)
Punta Arenas	(P Aren)
Valdivia	(Valda)
Valparaíso	(Valpo)
Concepción	(Con)
Los Angeles	(L Ang)

Course of Study	UofCh	CUofCh	CU	CUofV	FSMTU	STM	SUofCh	NU
School Administration and Supervision		x						
Agriculture	x	x	Chillán	x			x	
Nutrition and Home Making	x					x		
Archeology	x							
Architecture	Stgo Valpo	x		x				
Art		x						
Industrial Arts	x							
Plastic Arts	x							
Craftsmanship in Masonery Stone Ceramics and Metal Work	x							
Administrative Medical Assistance	Talca Temuco							
Technical Assistance in Construction	Talca Temuco Iquique Antof Osorno							
Social Work	Iquique Serena							
Library Science	Antof Stgo Temuco							

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[a] "Guía Informativa de las Universidades Chilenas," op. cit.

Course of Study	UofCh	CUofCh	CU	CUofV	FSMTU	STU	SUofCh	NU
Biology (see "Pedagogy")								
Biochemistry	x		x					
Heating and Refrigeration						x		
Catechetics				x				
Art and Science of Music	Serena Stgo						x	
Political Science and Public Administration	Stgo Valpo							
Civil Construction	x	x		x	x	Serena Atgo Temuco Valda		Arica Antof
Educational and Vocational Counseling	Stgo Valpo	x		x				x
Naval Construction						Valda		
Accountant	x		x	x				
Organization of Cooperatives (Tech. level)	Antof							
Religious Culture				x				
Decoration					x			
Law	Stgo Valpo	x	x	x				
Structural Drafting (TL)			x					
Mechanical Drawing (TL)			x					
Technical Drafting	Arica Antof Serena Talca Temuco							
Dietetics	Antof Talca							
Design								Arica
Doctoral Programs:								
Electrical Engineering					x			
Mechanical Engineering					x			
Chemical Engineering					x			

Course of Study	UofCh	CUofCh	CU	CUofV	FSMTU	STU	SUofCh	NU
Economics	Stgo Valpo	x	x	x				
Special Education		x						
Domestic Education		x						
Elementary Education		x		x				
Electricity	x			x	x	Antof Stgo Con Temuco Valda P Aren		
Electronics (TL)	Temuco		x	x	x			Arica Antof
Electrification and Electronics		x						
Nursing (first 2 years)	Antof Serena Stgo Temuco	x	x				x	
Classical Philology			x					
Physics (See "Pedagogy")								
Geography	x							
Geology	x							
Surveying (Geomensura) (TL)	x							
Kinesiology	x							
Chemical Lab Technician	Osorno Temuco							
Classical Languages	x							
Wood and Plastics					x			
Mathematics (see "Pedagogy")								
Engineering								
Civil	x	x						
Construction					x			
Electrical	x				x	x	x	
Electronics					x	x		
Forestry	x						x	

Course of Study	UofCh	CUofCh	CU	CUofV	FSMTU	STU	SUofCh	NU
Engineering:								
Industrial	x							
Wood & Plastic					x			
Mathematical	x							
Metallurgical			x		x	x		
Mechanical	x	x	x		x	x		
Mining	x					x		
Chemical	x	x	x	x	x	x		
Mechanics (TL)				x	x	Antof Serena Stgo Con Temuco Valda P Aren		Arica Antof
Agricultural Mechanics						Talca		
Medicine	Stgo Valpo	x	x				x (being organized)	
Veterinary Medicine	x						x	
Metallurgy	x					Copiapo Stgo		
Furniture Production						Stgo		
Obstetrics and Pediatrics	Antof Stgo Valpo Temuco						x	
Odontology	Stgo Valpo		x					
Professional Orientation	Valpo							
Domestic Orientation	Arica Serena Talca Temuco Orsono							
Pedagogy: (Licentiate in the following)								
German	Valpo							
Manual Arts	Antof Stgo							
Plastic Arts	Antof Stgo	x						
Biology (first 2 years)	Antof Stgo Valpo Temuco	x	x	x			x	
Science and Biology	x							
Chemistry and Biology	Antof							

Course of Study	UofCh	CUofCh	CU	CUofV	FSMTU	STU	SUofCh	NU
Pedagogy: (Licentiate in the following)								
Spanish	Stgo Valpo	x	x	x		x	x	Arica Antof
Education	x	x						
Physical Education	Stgo Valpo			x				Arica Antof
Philosophy	Stgo Valpo	x	x	x				
Physics	Antof Stgo	x	x					
French	Stgo Valpo	x	x	x				Arica Antof
History and Geography	Valpo		x					
History and Geography and Civics	x	x		x				
English	Antof Valpo	x	x	x		x		Arica Antof
(first 2 years)	Stgo Temuco							
Italian	Stgo Valpo							
Languages--Greek Japanese, Arabic	Valpo							
Mathematics	Antof Stgo		x					Arica
(first 2 years)	Temuco							
Mathematics and Physics	Antof Valpo	x		x		Stgo Talca	x	Arica Antof
Chemistry	Valpo Stgo	x	x	x			x	
Science and Chemistry	Antof Stgo	x						
Technical Pedagogy:								
State Professor for Industrial Training						x		
Plastic Arts and Mechanical Drawing						x		
Accounting and Business						x		
Public Accountant						x		
Economic History and Geography						x		
Mathematics, Physics and Statistics						x		
Mathematics and Statistics						x		
Advertising, drafting and caligraphy						x		
Chemistry and Merceology						x		
Embroidery						x		
Fashion						x		
Textiles (weaving)						x		
Infant Apparel						x		
Journalism	Stgo Valpo	x	x					

Courses of Study	UofCh	CUofCh	CU	CUofV	FSMTU	STU	SUofCh	Nu
Elementary Teaching	Arica Temuco Osorno x	Stgo Talca L Ang Con Temuco Villar	Con L Ang	x				x
Psychology	x	x						
Chemistry (see "Pedagogy")								
Chemistry and Pharmacy	x		x					
Public Health	x							
Social Work (first 2 years)	Serena Stgo Valpo Temuco	x	x	x				Arica
Sociology	x	x	x					
Technical:								
Administration	Arica Iquique Antof Serena Talca Temuco Osorno							
Agriculture	Serena Talca Temuco Osorno							
Artistry	Talca Temuco Osorno							
Wood Working						Con		
Mining						Antof Copiapo Serena		
Fishing				x				Arica Antof
Petrochemistry						P Aren		
Chemistry					x	Antof Stgo		Arica Antof
Technology in Food Production	Antof Serena							
Medical Technology	Antof Serena Stgo Talca						x	
Theology		x						

Courses of Study	UofCh	CUofCh	CU	CUofV	FSMTU	STU	SUofCh	NU
Textiles (Technical)						x		
Topography			Con L Ang			Antof Copiapo Serena Talca		

University Colleges (Centers)

One may note the several locations listed for various programs of the University of Chile. Eight of these represent University Centers created by and under the jurisdiction of the University of Chile--Temuco, opened in 1960; La Sueña opened in 1961; Antofagasta in 1963; and in 1965 new centers were started in Arica, Iquique, Talca and Osorno. The latest, in Chillán, opened its doors in 1966.

These centers are charged with responsibility to relate to their communities in terms of their technical-professional offerings and to provide opportunities for secondary graduates to continue general education. Too, they are required to offer both pre-service and in-service programs for teachers. Their professional programs and enrollment in each are listed in Figure 8 and gross institutional enrollment in Figure 9.

FIGURE 8--PROFESSIONAL UNIVERSITY COURSES OFFERED IN THE UNIVERSITY CENTERS LISTED ACCORDING TO THE OCCUPATIONS AND SERVICES TO WHICH THEY PERTAIN (ENROLLMENT IN PARENTHESES)

I. Agriculture (641)

  1. Technical specialization in

     a. General Agriculture
     b. Fruit and Viticulture
     c. Livestock (Animal Husbandry)
     d. Mechanized Agriculture

  2. Homemaking (423)

II. Business Administration

  1. Administration (547)
  2. Cooperative (Operation and Formation of) (6)
  3. Statistics (10)
  4. Public Administration (558)

III. Industry

  1. Industrial Technician in Nutrition
  2. Technical Assistant in Construction (64)
  3. Draftsman (205)
  4. Commercial Artist (106)
  5. Electrician (49)
  6. Chemical Laboratory Technician (191)

IV. Health and Social Work

13. Nursing* (259)
14. Obstetrics (91)
15. Technician (121)
16. Dietitian (171)
17. Sanitary Technician (28)
18. Administrative Medical Assistant (52)
19. Social Worker* Aid (252)
20. Social Worker - Auxiliary (53)

V. Education

21. State Professor of Spanish* (21)
22. State Professor of English* (210)
23. State Professor of Biology* (158)
24. State Professor of Mathematics* (123)
25. State Professor in the Plastic Arts* (61)
26. State Professor in Music Education* (61)
27. Elementary Teacher (378)
28. Librarian (82)

* Those courses of study requiring more than three years of completion.

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[a] Carreras Profesionales de los Centros Universitarios, Planes de Estudios, Universidad de Chile, Departamento Coordinador de Centros Universitarios, Santiago 1966 p. 15. Enrollments are 1966 figures from an insert chart.

FIGURE 9--ENROLLMENTS IN UNIVERSITY CENTERS - 1966

Center	Enrollment
Centro Universitario de Arica	340
Centro Universitario de Iquique	171
Centro Universitario de Antofagasta	443
Centro Universitario de La Serena	742
Centro Universitario de Talco	872
Centro Universitario de Nublo (Chillán)	439
Centro Universitario de Temuco	1,503
Centro Universitario de Osorno	411
TOTAL	4,921

The coordination of these centers is the responsibility of the Departamento Coordinador de Centros Universitarios de Provincias. This organism is located in Santiago and is under the direction of Dr. Irma Salas Silva. It has a staff of 12 (1966 data), including a librarian.

Council of Rectors

The Consejo de Rectores is an association of the rectors of all eight universities.

It was created in 1954 as a coordinating body. It allocates tax monies for construction and research to the several institutions. The Consejo is a legal entity and can contract with national or foreign agencies for research. Although without power over individual universities, it can exert some influence over the allocation of program responsibility among the member institutions. One of the Consejo's current projects is the development of a periodical index of material available in Chile.

Although Chilean universities are considered advanced in comparison with many of the universities of Latin America, they suffer from many of the same difficulties: uncoordinated programs between Facultades, a large percentage of part-time professors, lack of text and reference books, scattered and disorganized libraries, etc. This picture is changing in some schools and for some students, but the university experience for the average student is still one of listening and note-taking.

Teacher Education

Teachers for the general secondary schools are prepared in specific schools of the various universities and in the University Centers in the provinces.

The recently created Centro de Perfeccionamiento del Profesorado is charged with in-service training of 1,000 general secondary teachers per year in three-month long programs. There are 634 teachers in training in University Centers in various specializations.

Vocational teachers are mostly prepared in the Pedagogical Institute in the State Technical University. This institution also provides a two-year evening program for teachers in training. The Institute has programs for most of the courses offered in the Professional-Technical schools but does not cover electronics, design, building, workshops, or general construction.

Elementary school teachers are prepared in 17 normal schools and in a few of the university centers. Figures for 1965 show 6,896 enrolled in public normal schools and 378 (1966) in university center programs. Much of the elementary teacher training is secondary education, reaching only six years beyond the six year primary program. There is current effort to extend the requisite training for an additional two years and, early in the 1970's, to three years.

Ministry of Education reports show that there were 53,705 professionals in the educational enterprise in 1962. Of this number, 80 percent were teachers (49 percent public, 31 percent private) and 16.1 percent were teacher-administrators. In the same year 56 percent of the primary teachers had normal school diplomas and 56.8 percent of the secondary teachers had requisite titles. Although substantial numbers have been added to the teacher cadre since 1962, it is doubtful that substantial improvements in percentages of fully certificated teachers have yet been made.

APPENDIX B

The School Book Publishing Process In The United States[1]

Subsequent chapters of this report refer to the "editorial process" and its key potential function in the creation and publishing of primary and secondary school textbooks in Turkey. This section discusses pertinent aspects of this process as they have been applied to the U. S. school book publishing process.

U. S. publishing firms originate and develop new textbook project ideas in various ways. The ideas may originate with salesmen, sales managers, editors, or with teachers, who contact the publisher. In U. S. school book publishing, the publisher's field staff, in its daily contacts with teachers, is engaged in market research on a continuous basis. In addition, the publisher's school book editors (who specialize in disciplines such as social science or mathematics) attend the meetings of teachers who confer periodically on these subjects, read current literature on the subject, and many editors have originally been teachers themselves. Thus school book editors' knowledge of the specialized needs of their market is profound.

When a project is decided upon, the publisher gathers a group to make the publishing decisions and carry out the development of the textbook title or series. The individuals who comprise this group possess in aggregate these skills:

(a) a knowledge of the subject matter field and particularly of educational trends in the subject matter field;

(b) a knowledge of the money available for the new publishing project; and

(c) a knowledge of the marketing procedures involved.

The group functions under the guidance of an assigned school book editor, who coordinates, expedites and supervises its work.

The publishing process for a typical school book follows this general pattern:

(a) The publisher selects the subject and course of study to which he expects to give publishing priority. He does not do this in terms of today's needs, but rather in terms of the needs as visualized a number of years ahead. At this point, the publisher places the school book editor in charge of the project.

(b) Criteria for the selected single title or the series are then developed. These consist of a set of guidelines that delineate the characteristics of the book or series and thus make them more acceptable to educators than books of competitors. The criteria may reflect new viewpoints, new methods, or other distinguishing characteristics.

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[1] Wolf Management Engineering Company, Books as Tools for National Growth and Development: A Case Study of the Use of Books in Turkey, Washington, D. C., USAID, June 1965.

(c) For the development of these criteria, the publisher usually selects a team that combines these qualities: scholarship, a knowledge of teaching methods, an understanding of learning methods, and importantly--skill in writing. Thus the typical school book development team consists of a university professor who is an authority in the field, a primary or secondary school classroom teacher who understands how students respond to printed materials in the field, a specialist who knows the most recent developments in the field of methods, and a group of authors who are recruited by the publisher on the basis of their experience and competence.

(d) The school book editor and the team of authors then develop a complete outline for the book or the series.

(e) After the outline has been approved, the editor assigns work on the preparation of the manuacript to the various members of the authorship team, schedules the work each is to accomplish, and prepares a timetable to be followed.

(f) The manuscript is normally submitted to the editor one unit at a time. As he receives the units, he sends them out to be read and criticized by teachers and scholars who specialize in the field. He then reviews the manuscript himself, collates the criticisms received with his own and returns the manuscript to the authors for revision. During the manuscript preparation process, the manuscript is likely to undergo two or three revisions--and a seventh grade geography or an 11th grade American history textbook may take as long as three to five years to complete.

In preparing the manuscript, the authors and editor pay close attention to the reading level desired, to the needs of teachers, the courses of study, recent trends in scholarship, etc. The textbooks therefore become multidimensional; they are not one-dimensional books whose main purpose is to present the information that the students must learn to pass the examinations--as is often the case in many other countries.

(g) The editor's coordination and direction of efforts toward the production of a textbook is a complex undertaking. While he is supervising the authors in the preparation of the manuscript, he is also working with artists, photograph specialists and draftsmen to prepare the illustrations, maps and charts desired by the authors. This material is submitted in rough form to the authors for comment and change. At the same time, to guide the illustrators and the authors, the editor works with a designer, usually on the publisher's staff, to decide on the typography for the book, the nature of its design, the trim size, and so on. At this point, the editor is working with authors, illustrators, artists, and production men who have explored the most economical ways to meet the standards of publication.

(h) When the mansucript is finally ready for the outside printer, the editor's responsibility is usually turned over to the production specialist or managing editor who sees it through the printing operation. The process may take an additional eight to 12 months.

It can thus be seen that U.S. school books are the end-products of carefully planned and organized publishing efforts aimed at producing books of maximum effectiveness and value in the educational process.

Common Characteristics of Developed Book Industries

Although difficult to qualify, developed book industries have certain easily recognized common characteristics. These include:

(a) Book manufacturing capacity sufficient for internal needs and frequently for export as well. The machinery for printing and binding books need not, however, be produced within the country; imported machinery is common in even the largest publishing countries.

(b) Adequate supplies of paper. Most of the larger countries produce their own paper; but all that is required is a good supply at reasonable prices, whether produced locally or imported.

(c) A corps of trained and experienced personnel. The trained personnel required involved literally scores of specialists; for example, numerous kinds of authors, illustrators, translators and editors; management and accounting personnel; engineers, foremen and skilled workers in printing establishments, and experts in sales and distribution. These trained people are developed only gradually, on the job. For countries working to develop their book industries quickly, this is by far the most difficult requirement. Printing presses and paper can easily be purchased on the world market; skilled personnel take a relatively long period to develop.

(d) The separation of the publishing, printing, and bookselling functions. Although there are firms which import, publish, manufacture, and distribute books at retail, or combine two or three of these functions, these are usually the exceptions rather than the rule. Among developed book industries, firms are specialized. Normally, publishers only publish, printers only print, and booksellers only sell.

(e) An effective distribution network for getting the finished books into the hands of the consumer is essential. The means of distribution may vary considerably from country to country. By and large there are two general types of distribution systems--European (including the United Kingdom) and the American. In the European pattern, the retail bookstore distributes the great majority of books... in some countries 90 percent or more. This bookstore distribution includes elementary and secondary textbooks and the supply of books to libraries.

In the U.S. pattern, bookstores handle a minority of sales... on the order of 20 percent of the total. Primary and secondary textbooks are sold to the schools, which supply them free or rent them to students. Encyclopedias are sold from door to door. Professional and specialized books are frequently sold at newsstands, drug stores and many other types of retail establishments. Books sold to public and school libraries are distributed normally through wholesalers rather than retail bookstores. The American pattern seems to be spreading to Europe to some degree.

(f) Favorable laws and government policies. Government probably has more impact on publishing than on most industries and the industry requires an appropriate framework of law and government encouragement. Among the most important requirements in this field are:

- a copyright law protecting and encouraging both domestic and foreign authors;
- freedom from censorship;
- freedom to import and export books and publishing rights easily, with little or no burden of tariff, exchange restrictions and import formalities;
- a postal system and postal rates permitting extensive use of the mails both nationally and internationally, at least for small book shipments;
- virtually universal literacy developed through the educational system;
- provision of a market for books in educational institutions by giving books an important role in the curriculum and learning process, and in some cases more directly by providing free textbooks and ample supplies of books in school and public libraries.

(g) Active author and book trade organizations. Strong organizations of printers, publishers, booksellers and authors are characteristic of highly developed publishing countries. These associations play an essential role in developing professional standards and competence and in helping to secure the necessary government policies.

(h) Adequate bibliographic tools. A comprehensive bibliographic apparatus is necessary both to a flourishing publishing and bookselling trade and to the effective use of books in education, industry and the professions. These bibliographic tools can be provided in a variety of ways. In the U.K. and U.S. they are supplied largely by private companies with major assistance from the national libraries. In other countries the trade associations and government agencies are more important.

France: An Example of the Developed Publishing Industry

Unfortunately, it is not possible to present a composite quantitative sketch of a developed book publishing industry for lack of comparable national statistics. As an alternative, we discuss one country which may be called typical--France. For the purpose of illustration, France is preferable to the U.S., because of its smaller size and the equal availability of its statistics. Almost all the figures are taken from the excellent Monographie de l'Edition; the data are for 1961, except where otherwise noted.

Population: 45,960,000.

Per-capita income: $957.

Literacy, 14 years or older: 96.4% (1949).

Number of book titles published: total 11,878. Translations 1,608.

Number of copies of books produced: 178,667,000.

Number of copies for domestic market: 143,000,000.

Annual per-capita book consumption: 3.1 copies.

Sales of publishers at wholesale prices:

domestic - $122,807,000 (79.7%)
exports - 31,227,000 (20.3%)

Paper consumption for books:

total - 63,000 metric tons
per-capita - 2.74 kilograms

Number of publishing houses with sales of more than $20,000: 273

Employees in publishing houses: 7,239

Breakdown of titles and copies produced:

	New Titles	Re-prints	Total No. of Titles	Total No. of Copies
General literature	2,580	1,640	4,220	65,350,000
Children's books	555	1,005	1,560	35,200,000
Textbooks	650	2,375	3,025	56,350,000
Scientific and technical	495	446	941	4,382,000
Encyclopedias	41	81	122	2,685,000
Law, economics, politics, scholarly	500	237	737	2,229,000
Medical	162	61	223	702,000
Bibles, prayer books	78	92	170	2,460,000
Religious literature	354	271	625	4,465,000
The arts	165	90	255	4,844,000
Total	5,580	6,298	11,878	178,667,000

Bookstores: (estimated figures)

Major general bookstores	300
Other bookstores specializing in books	2,600
Stores offering other merchandise as well	6,000
Other outlets where books may be purchased (widely distributed books, chiefly in paper-bound form, may be purchased in at least 12,000 outlets)	18,000
Total	26,900

Readership among adults (20 years of age and over):

	Never Read	Read Books	Read other publications only
With primary education	7.0%	28%	65.0%
Higher primary or technical education	3.5%	60%	36.5%
Secondary or higher education	1.0%	80%	19.0%

It will be noted that although two of the largest single categories of books published in France--general literature and children's books--consist primarily of fiction and other imaginative literature, about half of the titles are books relating to education and to economic and professional activities. In addition, general literature and children's books serve educational as well as general cultural purposes. In this respect, France reflects the contemporary trend in developed publishing countries. As compared with the 19th century and even this century up to World War II, books now tend to be ralatively less significant as entertainment and leisure time activity and more important as tools of education and economic, scientific and technological development.

In some countries this trend has gone further than it has in France. In the U.S., for example, there were 2,103 fiction titles published in 1930--21 percent of the total of 10,027 book titles published that year. By 1963 the number of adult fiction titles published had increased to 3,124 (of which 1,731 were in paperback format), but they represented only 12 percent of the 25,784 titles published that year.

The trend is the result both of (a) competition from other forms of leisure time activity, such as television, the automobile and sports, and (b) the higher levels of education, science, technology and professional activity in the modern economy, which require much more extensive and intensive use of books as tools.

The same emphasis on books as tools of economic, social and political development is likely to be reflected in the types of books published in developing countries. At the same economic level, these countries are likely to publish a much higher proportion of educational, scientific and technical books than was the case in the U.S. and Western Europe during the 19th century.

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